



STANDARDS OF COVER



2023

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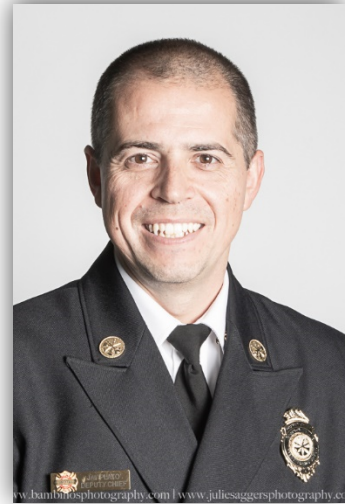
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Chief's Introduction

I am pleased to present the Niagara-on-the-Lake Fire & Emergency Services' Community Risk Assessment - Standards of Cover (CRA-SOC) document as we continue our journey through continuous improvement.

As Niagara-on-the-Lake Fire & Emergency Services continues to move forward by actioning recommendations from the Deloitte Service Delivery Review, Facilities Master Plan, and Fire Master Plan, the 2021-2025 Strategic Plan incorporates key principles and components of the Commission on Fire Accreditation International (CFAI) process to ensure alignment with continuous improvement methodologies.



This CRA-SOC document has been developed through comprehensive collaboration and consultation with internal and external stakeholders. Staff have invested a significant amount of time in researching and analyzing the information contained within this document. As Niagara-on-the-Lake Fire & Emergency Services moves forward, the focused identification of risk, as well as the established baselines and benchmarks, will allow for improved service levels throughout the distinct communities that make up Niagara-on-the-Lake.

I am incredibly appreciative of our members that have embraced our commitment to continuous improvement and am confident that this formalized continuous improvement process will better position our organization to meet the evolving needs of our community.

A handwritten signature in blue ink, which appears to read "Jay Plato". The signature is stylized and fluid.

Fire Chief, Jay Plato

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Executive Summary

The Community Risk Assessment – Standards of Cover (CRA-SOC) for Niagara-on-the-Lake Fire & Emergency Services (NOTLFES) documents the characteristics of our community, hazards and risks, response quality, and the plan to maintain or improve our capabilities. NOTLFES is an all-hazards emergency service agency protecting the northeast area of the Niagara Region known as Niagara-on-the-Lake. NOTLFES provides service to an expansive and diverse area containing residential, commercial, industrial, and agricultural properties. Furthermore, NOTLFES provides service along the Queen Elizabeth Way highway, Highway 405, the Garden City Skyway, and both Lake Ontario and the Niagara River. The Department serves a resident population of approximately 19,000 across a land area of 132 square kilometres. Niagara-on-the-Lake is also a well-established tourist destination drawing more than 3 million visitors annually.

The NOTLFES Fire Chief oversees two distinct divisions that are comprised of 110 volunteer firefighters/officers and seven full-time staff members. All operational emergency services crews are deployed from 5 fire stations housing 16 apparatus. NOTLFES responds to approximately 700 incidents per year.

The Operations & Training Division is led by the Deputy Fire Chief with the Department's Training Officer reporting directly. This division oversees all fire suppression activities, fleet and facilities requirements, and health and safety requirements.

The Community Risk Reduction Division is led by the Chief Fire Prevention Officer with a Fire Prevention & Public Education Officer and Fire Inspector reporting directly. This division is responsible for the community's fire prevention and public education activities, fire investigations, emergency management, community outreach, and data analytics/decision support.

NOTLFES has utilized five years of data (2018-2022) to evaluate the current service delivery capabilities and organizational performance. This data has been evaluated against adopted response time criteria in order to measure performance. Through the development of the CRA-SOC, areas for improvement in service delivery have been identified that will enhance the quality of service delivery, in turn enhancing public safety.

Community Served

Community Overview – Then and Now

The Town of Niagara-on-the-Lake, Ontario, Canada, was settled in 1781 and incorporated in 1792. At that time, the community, known then as Newark (Figure 1), served as the capital of the newly created Upper Canada.¹

Niagara-on-the-Lake / Old Town

In approximately 1797, the town became known as Niagara. The town served as a significant battleground during the War of 1812, which took place from 1812 to 1815.² Following the war, Niagara suffered from considerable damage and began to rebuild. The founding of the Niagara Harbour and Dock Company in 1831 further enhanced the

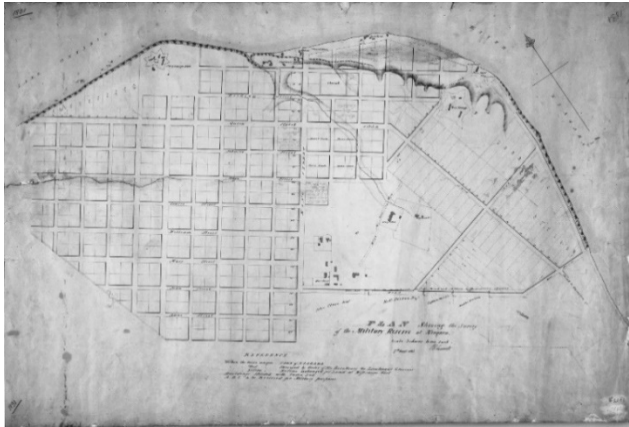


FIGURE 1 - IMAGE SOURCE

BROCK UNIVERSITY [HTTP://hdl.handle.net/10464/10497](http://hdl.handle.net/10464/10497)

town's prosperity. By 1860 however, most businesses had moved to the neighbouring city, St. Catharines, to be closer to the newly built Welland Canal. This new shipping canal provided businesses improved access to the balance of the region, allowing goods to be transported north across Lake Ontario and south to the United States across Lake Erie.

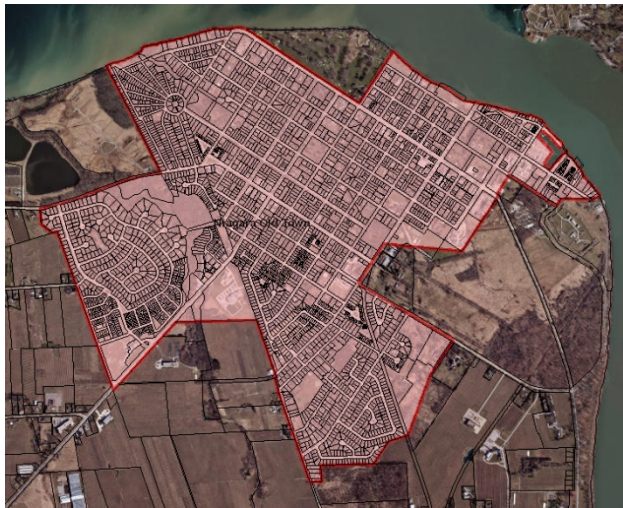


FIGURE 2 – MAP OF OLDTOWN

In 1861 the town of Niagara adopted “on-the-Lake” to not be confused by the newly created city of Niagara Falls to the south. Niagara-on-the-Lake, then going through a state of depression after many businesses had left town, began turning its farms into more profitable fruit orchards. Fruit tendering became one of the primary industries in town until approximately 1870 when tourism began within the area. Today's community remains a busy tourist destination known for its rich history, preservation of 1800s buildings, and world-renowned wineries.

¹ [NOTL History | Collection & Research | Niagara Historical Society Museum \(nhsm.ca\)](#)

² [Visiting Our Community | Niagara on the Lake \(notl.org\)](#)

Over the past ten years, the town has seen an increase in retirees moving to the area, many of whom visited on vacation and subsequently chose to move here permanently.

Prior to 1970, Niagara-on-the-Lake was limited to a small geographical area currently known as Old Town (Figure 2). The neighbouring Township of Niagara was comprised of three separate communities. These communities included the village of St.Davids, the village of Queenston, and the town of Virgil.

Amalgamation

In 1970, Niagara-on-the-Lake amalgamated with the Township of Niagara to form the Corporation of the Town of Niagara-on-the-Lake (Figure 3). This amalgamation brought together the four main communities of Niagara-on-the-Lake, St.Davids, Virgil, and Queenston, along with outlying smaller communities, such as McNab and Glendale, under the singular municipality we see today. Over recent years, Glendale has continued to grow, becoming established as an urban area within the municipality. Other smaller areas, such as McNab, did not experience such growth and are now considered part of rural Niagara-on-the-Lake.

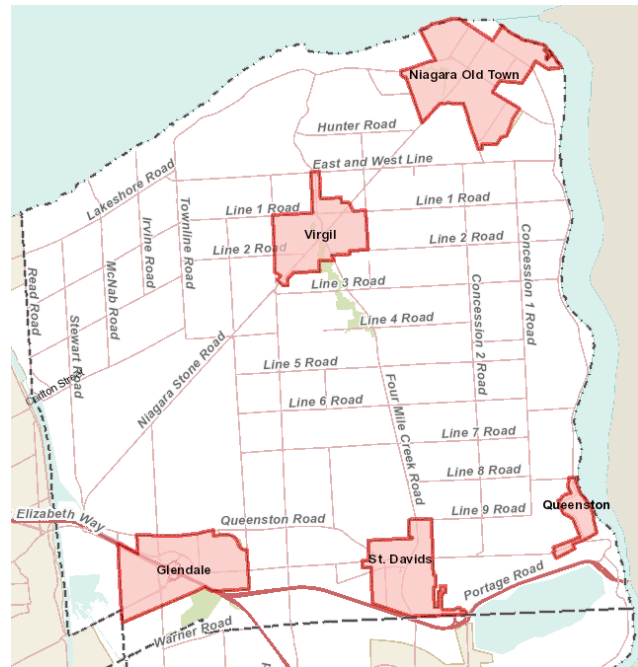


FIGURE 3 – MAP OF NIAGARA-ON-THE-LAKE

St.Davids

The village of St.Davids (Figure 4) sits at the base of the Niagara Escarpment. Halfway up the escarpment are the St.Davids springs, which are the source of the Four Mile Creek. This creek meanders through the village on its way to Lake Ontario. During the War of 1812, the entire village was captured by the Americans. British forces were able to regain the village but not before being completely burned to the ground by the Americans. After the war, the village was rebuilt into a small industrial town. As time went on, the community transitioned into a farming community growing tender fruit. In 1970, the village of St.Davids, along with the village of Queenston and

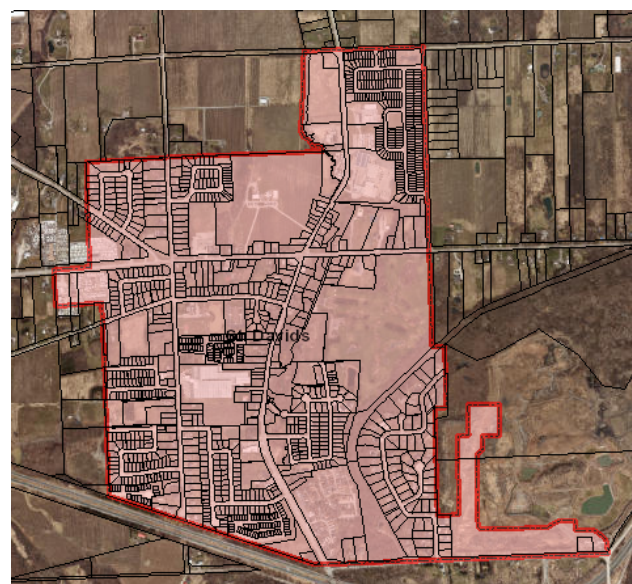


FIGURE 4 – MAP OF ST.DAVIDS

the town of Virgil, combined with Niagara-on-the-Lake to form what is now known as the Corporation of the Town of Niagara-on-the-Lake.³ St.Davids remains mainly a residential community today, with only a handful of local businesses in operation.

Queenston

The village of Queenston (Figure 5), which sits at the base of the Niagara Escarpment along the west side of the Niagara River, became a popular trading community in the 1790s due to a shift in transportation from the eastern side of the Niagara River (American side) to the western side. Portage Route, the newly created passage at the time, led to the south, which allowed goods to be transported southward towards Lake Erie and onto Detroit, Michigan. Like other communities in the area, much of the town was destroyed in the War of 1812. Again, similar to other areas following the war, Queenston was rebuilt. As the nearby Welland Canal began replacing the Portage Route, the village was no longer positioned along a trading route. The village developed into a small residential community and has remained this way ever since.⁴

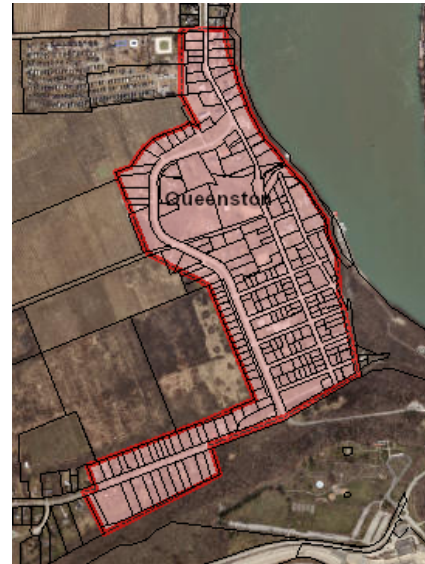


FIGURE 5 – MAP OF QUEENSTON

Virgil

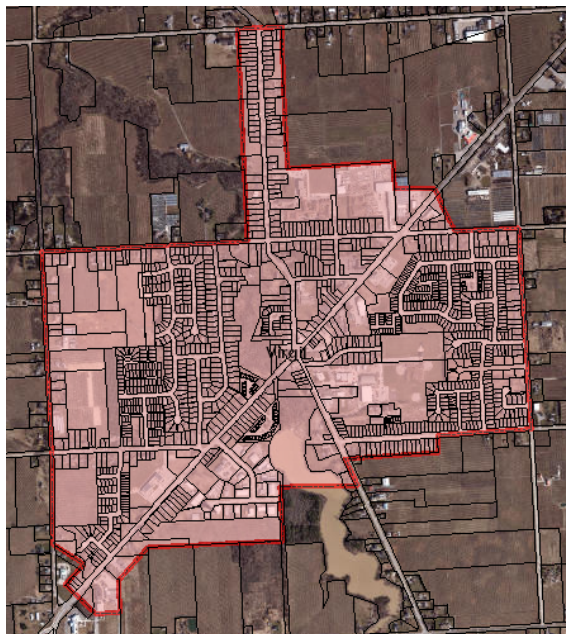


FIGURE 6 – MAP OF VIRGIL

The town of Virgil (Figure 6), originally known as Crossroads, is situated within the middle of current Niagara-on-the-Lake. As Crossroads grew in population, it later became known as Lawrenceville, after prominent settler George Lawrence settled in the area. Between 1862 and 1876, the small town was renamed Virgil. The community remained a small farming community until the First World War. After this time, many Russian Mennonites escaping persecution from Europe fled and landed in Virgil. Their expertise in farming helped to boost the farming industry within the town. During the early, to mid-1900s several canneries were built. While wineries have long since replaced most canneries, the community remains predominantly a tender fruit farming

³ [Exploring Niagara | Queenston, Ontario](#)

⁴ [Exploring Niagara | Queenston, Ontario](#)

community. Several local businesses exist, with new subdivisions continually being established.⁵

Modern Day

The Corporation of the Town of Niagara-on-the-Lake is located within the northeast corner of the Niagara Region, as shown in Figure 7. It is one of twelve lower-tier municipalities that make up the upper-tier Regional Municipality of Niagara. The Town has a population of approximately 19,088 (2021 census)⁶ residents, primarily located within the urban areas of Old Town, Virgil, St. Davids, Queenston, and Glendale. With a land area of approximately 132 km², the community contains an abundance of significant rural areas, agricultural lots, natural areas, provincially significant wetlands, and environmentally sensitive areas. Lake Ontario borders the Town to the north and the Niagara River to the east. Directly to the south is the City of Niagara Falls, with the City of St. Catharines to the west.

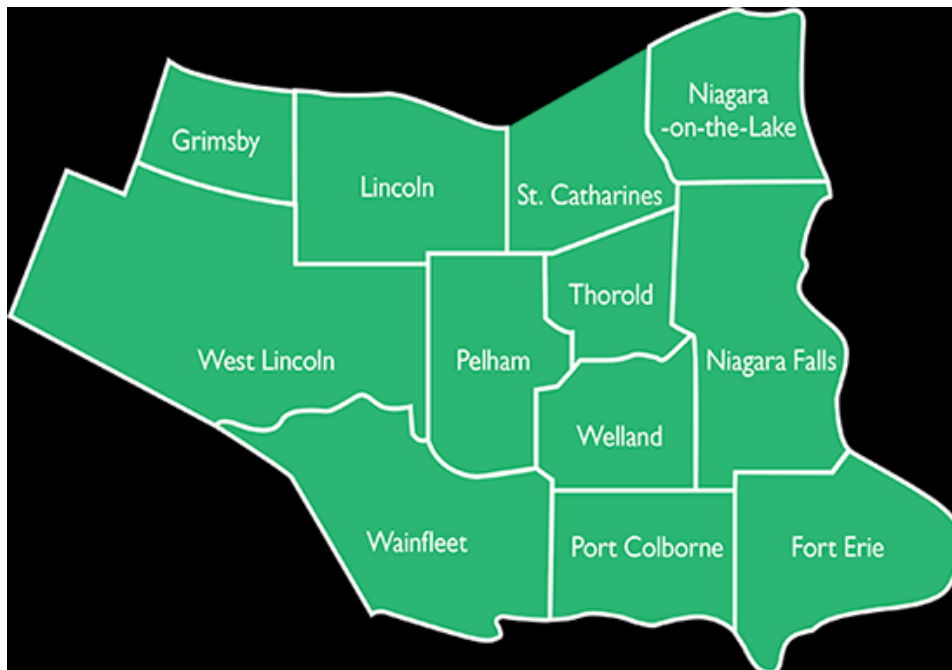


FIGURE 7 – MAP OF THE REGIONAL MUNICIPALITY OF NIAGARA
IMAGE PROVIDED BY THE NIAGARA REGION

Niagara-on-the-Lake is a popular tourist destination drawing on average more than 3 million visitors each year⁷. Renowned for its rich Canadian history, the town features dozens of original historic buildings. A near perfect combination of topographical features and climate enables the community to produce some of the world's best wines grown across hundreds of acres of vineyards. Two 400 series highways stretch across

⁵ [Exploring Niagara | Virgil, Ontario](#)

⁶ [Profile table, Census Profile, 2021 Census of Population - Niagara-on-the-Lake, Town \(T\) \[Census subdivision\], Ontario \(statcan.gc.ca\)](#)

⁷ [Home | Niagara-on-the-Lake Chamber of Commerce](#)

the southern border of the town, connecting the community to several major Canadian cities such as Hamilton, Oakville, Mississauga, and Toronto, all of which are approximately an hour away from Niagara-on-the-Lake. Niagara-on-the-Lake has been rated among the best places to retire in Ontario, according to *Comfort Life*, a publication for seniors.⁸

Climate

Niagara-on-the-Lake sees an average temperate high of 21°C / 70°F in the summer months and an average low of -2°C / 28°F in the winter months. Niagara-on-the-Lake typically sees approximately 1m (3') of snow in an average year, along with approximately 0.8m (2.5') of rainfall.

FIGURE 8: MAP OF NIAGARA-ON-THE-LAKE

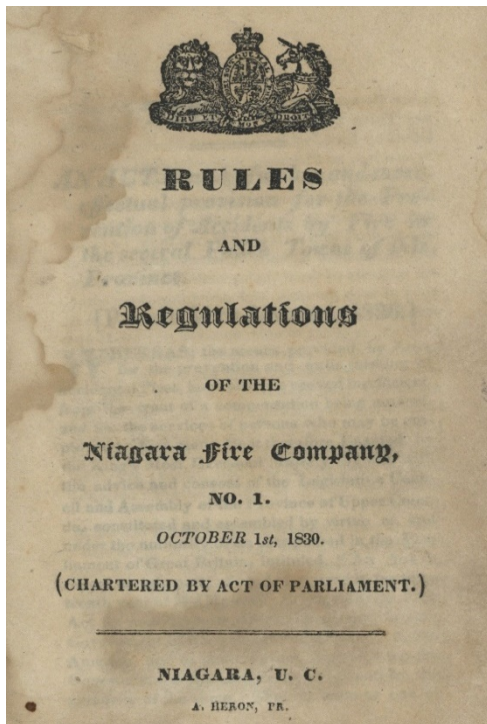
Month	Average High (Celsius / Fahrenheit)	Average Low (Celsius / Fahrenheit)
January	0°C / 32°F	-6°C / 21°F
February	0°C / 32°F	-6°C / 21°F
March	4°C / 40°F	-3°C / 27°F
April	11°C / 52°F	2°C / 36°F
May	18°C / 64°F	8°C / 45°F
June	23°C / 74°F	13°C / 56°F
July	26°C / 80°F	17°C / 64°F
August	25°C / 78°F	16°C / 62°F
September	21°C / 70°F	12°C / 54°F
October	15°C / 59°F	7°C / 45°F
November	9°C / 48°F	2°C / 36°F
December	2°C / 36°F	-4°C / 25°F

*INFORMATION SOURCE: ENVIRONMENT CANADA, AVERAGE BETWEEN 1981-2010

⁸ [Best places to retire in Ontario \(comfortlife.ca\)](http://Bestplaces.toretire.inOntario.comfortlife.ca)

Niagara-on-the-Lake Fire and Emergency Services

Niagara-on-the-Lake Fire & Emergency Services (NOTLFES) is one of Canada's oldest recorded fire departments, established at the end of the war in 1816. The then known Niagara Volunteer Fire Department became the first incorporated fire department, by an Act of Parliament, in 1826. This incorporation guaranteed that all buildings within the Town of Niagara would be protected by the fire department.⁹ (Figure 9)



During the mid-1900s, St.Davids, Virgil and Queenston had their own volunteer fire departments protecting their communities. As part of the amalgamation in 1970, all four fire departments combined to create the Niagara-on-the-Lake Fire & Emergency Services.

In 1977, the Town built a fire station in Queenston to help protect this area of the newly formed larger Town of Niagara-on-the-Lake. In subsequent years, the Town built new fire stations for the remaining areas of Old Town, St.Davids, and Virgil. In the mid-2000s, a fire station was built in Glendale. Upon completion of this fire station, the Town had five fire stations located in the five urban areas of the community, which all remain in place today.

In 2016, Niagara-on-the-Lake Fire & Emergency Services celebrated its 200th anniversary.

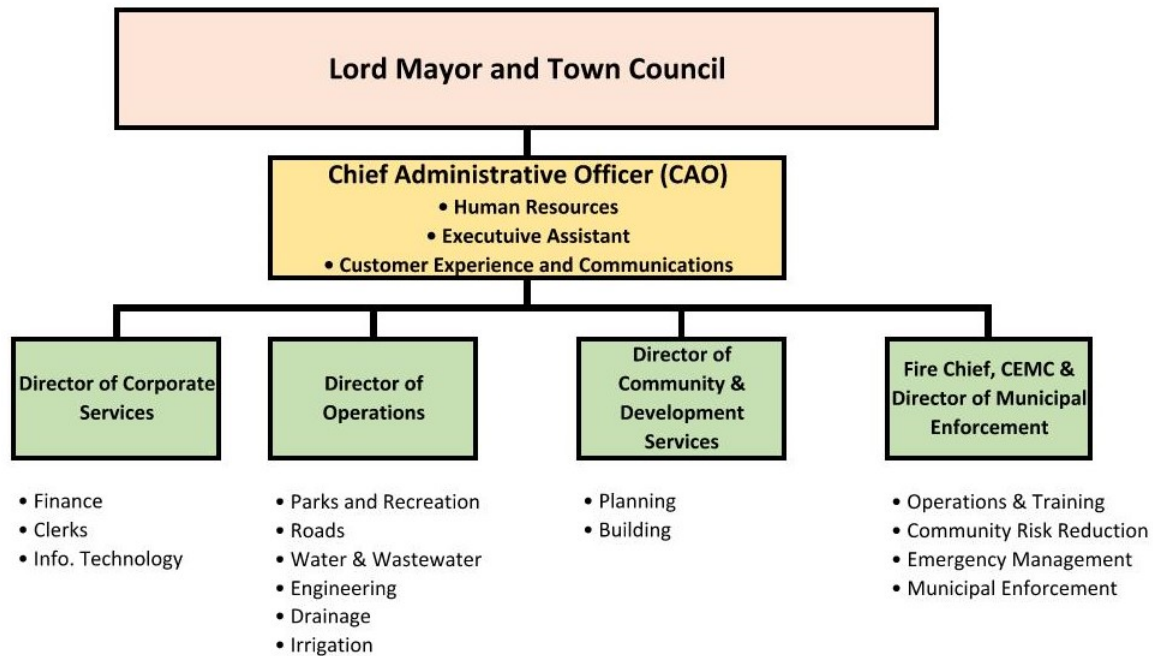
FIGURE 9: RULES AND REGULATIONS OF THE NIAGARA FIRE COMPANY, 1830

IMAGE SOURCE – NIAGARA-ON-THE-LAKE MUSEUM RULES (PASTPERFECTONLINE.COM)

⁹ [History of Niagara-on-the-Lake Fire Department: Niagara-on-the-Lake Heritage Portal \(vitacollections.ca\)](https://www.vitacollections.ca/history-of-niagara-on-the-lake-fire-department)

Town of Niagara-on-the-Lake Organization Overview

FIGURE 10: NIAGARA-ON-THE-LAKE MUNICIPAL ORGANIZATIONAL TREE

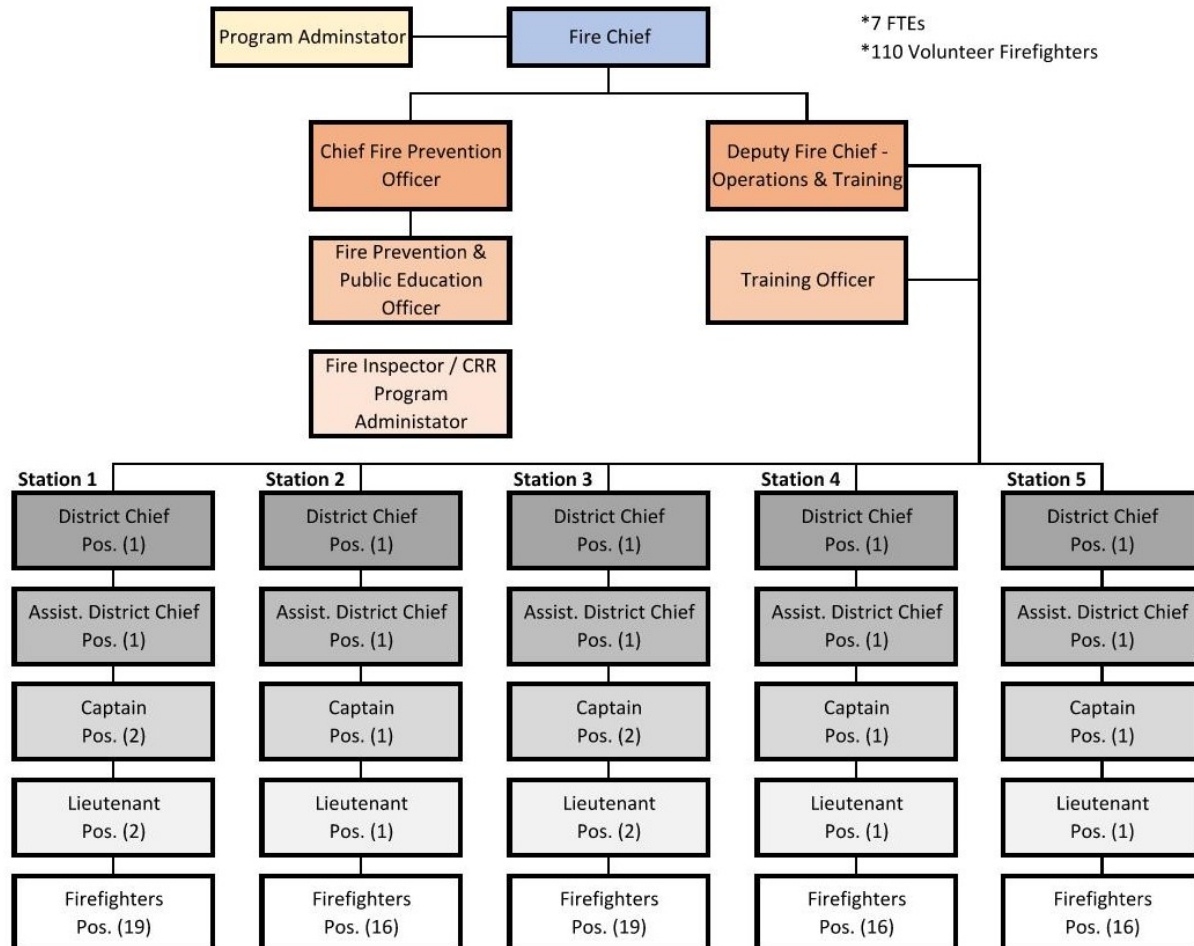


The Town of Niagara-on-the-Lake's senior management team is comprised of four Directors and a Chief Administrative Officer (CAO). The Chief Administrative Officer reports to Town Council. Town Council is made up of nine elected municipal officials, which include the Lord Mayor and eight Councillors. As shown within Figure 10, each Director oversees different municipal departments or services. The Fire Chief is considered a Director and, as such, reports to the CAO. Through Provincial legislation, namely the Fire Protection and Prevention Act (FPPA), the Fire Chief is to be appointed by a Municipal Council. As such, the FPPA indicates that the Fire Chief is the person who is ultimately responsible to the Council of a municipality that appointed them for the delivery of fire protection services.¹⁰ Within Niagara-on-the-Lake, this reporting structure is completed through the CAO.

¹⁰ [Fire Protection and Prevention Act, 1997, S.O. 1997, c. 4 \(ontario.ca\)](#)

Fire and Emergency Services Organization Overview

FIGURE 11: NIAGARA-ON-THE-LAKE FIRE AND EMERGENCY SERVICES ORGANIZATIONAL TREE



The information presented in Figure 11 reflects the general reporting structure within the Niagara-on-the-Lake Fire & Emergency Services. As noted within the *'Town of Niagara-on-the-Lake Organization Overview,'* the Fire Chief reports to the CAO. Overseeing all aspects of the fire department, the Fire Chief sets the overall direction of the fire department while also having significant involvement within the senior management structure of the Town. The Department's Deputy Fire Chief and Chief Prevention Officer each oversee one of the Department's organizational divisions and report directly to the Fire Chief.

Chief Fire Prevention Officer oversees the Community Risk Reduction Division. The position is responsible for overseeing fire prevention and public education activities, fire investigations, emergency management, community outreach, and data analytics/decision support. The Department's Fire Prevention and Public Education Officer and Fire Inspector report directly to the Chief Fire Prevention Officer.

The Deputy Fire Chief oversees the Operations and Training Division. This position manages all fire suppression activities, fleet and facilities, health and safety, and general oversight of the 110 volunteer firefighters. The Fire Training Officer, who coordinates all firefighter training, reports to the Deputy Fire Chief.

Beyond the seven administrative staff, the Niagara-on-the-Lake Fire & Emergency Services is entirely comprised of volunteer firefighters. There are five fire stations, each with a complement of one district chief, one assistant district chief, one to two captains, one to two lieutenants, and 16-19 volunteer firefighters. Figure 11 on page 13 reflects each station's specific complement.

In the summer of 2020, the Niagara-on-the-Lake Fire & Emergency Services rebranded with a new crest, mission statement, vision statement, and three core values. Figure 12 shows the new crest, statements and values.

FIGURE 12: CREST, MISSION STATEMENT, VISION STATEMENT & CORE VALUES



Governance and Lines of Authority

Section 2 of the Fire Protection and Prevention Act, 1997. S.O. 1997, c.4, as amended, requires that every municipality establish a program which must include public education with respect to fire safety and certain components of fire prevention; and to provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances.¹¹

Furthermore, Section 5 of the Fire Protection and Prevention Act, 1997. S.O. 1997, c.4, as amended, authorizes the council of a municipality to establish, maintain and operate a fire department for all or any part of the municipality.¹²

Niagara-on-the-Lake Fire & Emergency Services is legally established by Municipal By-law 5244-20, A BY-LAW TO ESTABLISH AND REGULATE A FIRE DEPARTMENT TO PROVIDE FIRE, RESCUE AND EMERGENCY SERVICES.¹³.

¹¹ [Fire Protection and Prevention Act, 1997, S.O. 1997, c. 4 \(ontario.ca\)](#)

¹² [Fire Protection and Prevention Act, 1997, S.O. 1997, c. 4 \(ontario.ca\)](#)

¹³ [Fire Department \(By-law 5244-20\).pdf \(notl.com\)](#)

Fire Department Finances

The requirement for a municipal budget within Ontario is governed by the Municipal Act, 2001, S.O. 2001, c.25, as amended. Section 290 of the Act states, “For each year, a local municipality shall, in the year or the immediately preceding year, prepare and adopt a budget including estimates of all sums required during the year for the purposes of the municipality.”¹⁴

Within the Town of Niagara-on-the-Lake, the Town’s Treasurer is ultimately responsible for preparing and finalizing the budget for the Town. On an annual basis, the budget begins to be reviewed in August. Capital and operational budgets are reviewed annually, with future year-end forecasts typically prepared at the same time. Capital expenditures are usually forecasted for ten years, while the operating budget is forecasted for five years. The 2019 municipal budget did not contain any forecasting as there was a newly elected Municipal Council that set new priorities. Before any annual budget is presented to Council, Council empowers an Audit and Finance Committee to review the proposed budget put forth by Staff. The committee is comprised of Council members and members of the Town’s Senior Management Team. After their review, the Committee can recommend that the budget be forwarded to Council for approval or suggest that it be sent back for further consideration. A further review from the Committee would then be required again once revised.

Once the municipal budget has been finalized and approved by the Committee, it must be approved by Council. Approval of the budget typically happens during a Special Council Meeting. In previous years the budget has been approved as early as December in the year the budget was presented or as late as February the following year.

As described within the Municipal Act, Section 296, the municipal budget must also be reviewed annually by an auditor licensed under the Public Accounting Act, 2004.¹⁵

All components of the Niagara-on-the-Lake Fire & Emergency Services’ operational and capital annual budget, including forecasting, is prepared by the Fire Chief and submitted to the Treasurer for review.

Figure 13 represents the annual operating costs of the Niagara-on-the-Lake Fire & Emergency Services for the last five years. Figure 14 presents the annual capital expenditures for the previous five years. Figure 15 shows a breakdown of how the Niagara-on-the-Lake Fire & Emergency Services’ budgets have been financed for the last five years.

¹⁴ [SO 2001, c 25](#) | [Municipal Act, 2001](#) | [CanLII](#)

¹⁵ [SO 2001, c 25](#) | [Municipal Act, 2001](#) | [CanLII](#)

FIGURE 13: NIAGARA-ON-THE-LAKE FIRE AND EMERGENCY SERVICES ANNUAL OPERATIONAL BUDGET

Net Expenses (Actuals)	2018	2019	2020	2021	2022
<i>Program Administration</i>	\$1,296,011.36	\$1,245,606.37	\$1,350,193.36	\$1,595,412.46	\$1,559,671.84
<i>Vehicles and Equipment</i>	\$125,188.76	\$173,418.89	\$140,608.42	\$171,247.52	\$195,209.78
<i>District Expenses</i>	\$144,466.05	\$138,957.74	\$143,870.92	\$126,660.21	\$157,772.65
<i>Community Risk Reduction Division</i>	\$4,322.02	\$4,695.10	\$2,125.56	\$4,932.12	\$4,270.37
<i>Training Division</i>	\$48,726.74	\$33,482.68	\$41,721.10	\$43,290.69	\$38,954.64
<i>Emergency Management</i>	\$0	\$0	\$17,243.62	\$5,954.13	\$785.47
<i>Total Operational Budget</i>	\$1,618,714.93	\$1,596,160.78	\$1,695,762.98	\$1,947,497.13	\$1,956,664.75
<i>Approved Net Budget</i>	\$1,424,355.00	\$1,532,584.00	\$1,657,849.00	\$1,856,287.00	\$1,938,451.00
<i>Differential</i>	(\$194,359.93)	(\$63,576.78)	(\$37,913.98)	(\$91,210.13)	(\$18,213.75)

Through Figure 13 above, it is shown that the Niagara-on-the-Lake Fire & Emergency Services has seen an average increase of 6.75% in their operational budget annually for the last five years.

FIGURE 14: NIAGARA-ON-THE-LAKE FIRE AND EMERGENCY SERVICES ANNUAL CAPITAL BUDGET

Expenses	2018	2019	2020	2021	2022
<i>Approved Capital Expenditures</i>	\$486,000.00	\$333,500.00	\$481,500.00	\$2,214,000.00	\$2,211,500.00

As shown within Figure 15, more than 90% of the Niagara-on-the-Lake Fire & Emergency Services budget comes from municipal taxes. In 2017, the Niagara-on-the-Lake Fire & Emergency Services reviewed the services it provides versus potential opportunities for cost recovery. It was determined that a significant amount of time was spent reviewing and inspecting properties for planning and building matters. As such, the Town's Community and Development Services Division, which generates its funds through fees collected for building and planning matters, now transfers \$40,000 to assist in funding the Fire Department budget. This transfer is permitted through section 30.28 of the Ontario Building Code Act¹⁶ as the Fire Department completes tasks that can be attributed to the review and inspection of building permits. Although nominal, this cost recovery directly reduces the tax levy necessary to support the Niagara-on-the-Lake Fire & Emergency Services' budget. In 2017, Niagara-on-the-Lake Fire & Emergency Services began to invoice more frequently for recoverable costs associated with emergency response.

FIGURE 15: NIAGARA-ON-THE-LAKE FIRE AND EMERGENCY SERVICES ANNUAL FUNDING BREAKDOWN.

Revenue Sources	2018	2019	2020	2021	2022
<i>Net Tax Levy</i>	\$1,424,355.00 100%	\$1,532,584.00 100%	\$1,657,849.00 100%	\$1,856,287.00 100%	\$1,938,451.00 100%
<i>Fire Department Fees</i>	\$68,642.88	\$46,108.20	\$79,538.09	\$81,653.34	\$169,104.32
<i>% of Budget</i>	4.8%	3.0%	4.8%	4.4%	8.7%
<i>Rental Revenue</i>	\$33,341.19	\$34,008.05	\$34,688.25	\$0.00	\$0.00
<i>% of Budget</i>	2.3%	2.2%	2.1%	0.0%	0.0%
<i>Transfer from Building Dept.</i>	\$40,000.00	\$40,000.00	\$20,000.00	\$20,000.00	\$20,000.00
<i>% of Budget</i>	2.8%	2.6%	1.2%	1.1%	1.0%
<i>Reserve Funding</i>	\$0	\$0	\$20,000.00	\$20,000.00	\$20,000.00
<i>% of Budget</i>	0.0%	0.0%	1.2%	1.1%	1.0%
<i>Taxes</i>	\$1,282,370.93	\$1,412,467.75	\$1,503,622.66	\$1,734,633.66	\$1,729,346.68
<i>% of Budget</i>	90.0%	92.2%	90.7%	93.4%	89.2%

¹⁶ [Building Code Act, 1992, S.O. 1992, c. 23 \(ontario.ca\)](#)

Review of Services Provided

Municipal Responsibilities

It is the Municipal Council that sets the level of service within the community. The Fire Protection and Prevention Act, 1997, S.O. 1997, c. 4, outlines the responsibilities of a municipality, providing a framework for protecting citizens from fire:

2. (1) Every municipality shall,

- (a) Establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention; and
- (b) Provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances.¹⁷

Emergency Response

Niagara-on-the-Lake Fire & Emergency Services provides numerous emergency response services across five urban areas and throughout all remaining rural areas within the Town of Niagara-on-the-Lake's municipal boundaries. Emergency response within Niagara-on-the-Lake Fire & Emergency Services is provided exclusively by volunteer firefighters. Occasionally, the Fire Chief or Deputy Chief may intervene to assume the Incident Commander role; however, the volunteer firefighters complete all operational functions.

Emergency responses within the Town include providing firefighting services, basic life safety response services, rescue services and public assistance services. The following is a further summarized breakdown from the department's Establishing and Regulating By-law, 5244-20¹⁸.

- Basic and Structural firefighting services, including interior and exterior operations
- Firefighting services including:
 - Basic and structural operations
 - Rural firefighting operations
 - Vehicle fire operations
 - Grass, brush, and forestry operations
- Tiered medical assistance and ambulance assistance services
- Police and public hazard assistance services
- Transportation accidents and extrications involving vehicles, trains, aircraft.
- Shore-based water and ice rescue services
- Hazardous materials response services
- Shore-based water and ice rescue services

¹⁷ <https://www.ontario.ca/laws/statute/97f04>

¹⁸ [5244-20.pdf \(civicweb.net\)](#)

Most technical rescue services within Niagara-on-the-Lake are provided through a memorandum of understanding, mutual aid agreement or automatic aid agreement with neighbouring municipalities. These services include:

- High/Low Angle Rescue
- Confined Space Rescue
- Trench Rescue
- Ice/Water Rescue
- Hazmat/CBRNE

Emergency Medical Response

All emergency medical responses are handled through the Niagara Emergency Medical Services (Niagara EMS) within the Niagara Region. Niagara EMS is responsible for providing 24-hour emergency pre-hospital medical care and transportation to individuals experiencing injury or illness. Niagara EMS consists of 41 ambulances along with other equipment serving out of 17 stations located throughout the Niagara Region. Niagara-on-the-Lake Fire & Emergency Services is dispatched to assist with any calls that Niagara EMS believes require additional support or assistance from the Fire Department. This response is rendered through a Tired Response Agreement between Niagara EMS and Niagara-on-the-Lake Fire & Emergency Services. All Niagara-on-the-Lake volunteer firefighters are trained and certified to the Basic Life Safety (BLS) standards.

Memorandum of Understanding

The Town of Niagara-on-the-Lake has a memorandum of understanding (MOU) for the provisions of technical rescue services with the City of Niagara Falls through the Niagara Falls Fire Department. Through this MOU, the Niagara Falls Fire Department will respond when requested and subject to availability and operational needs to rescue operations, including high/low angle rescue, confined space rescue, trench rescue and ice/water rescue.

A second MOU is in place that involves all 12 fire departments across the Niagara Region. The basis of this understanding is that if a fire department requires assistance of any kind during an emergency, any of the other 11 departments will offer assistance as available.

A third MOU exists not between the Town of Niagara-on-the-Lake directly but between provincial response teams for hazardous material incidents (HAZMAT); chemical, biological, radiological, nuclear, or explosive incidents issues (CBRNE); and heavy urban search and rescue (HUSAR); and the provincial government. This understanding document permits any fire department within Ontario to call upon the required resources, as available for any of the described incidents.

A fourth MOU exists between the Town and Niagara EMS for the delivery of Naxolone during a medical emergency. This understanding is the newest of the current MOU's in place being signed in the Fall of 2023.

Lastly, an MOU exists between all Ontario fire departments and the Office of the Fire Marshal for equipment, expertise and services offered by the Office of the Ontario Fire Marshal.

Automatic Aid Agreements

The Town of Niagara-on-the-Lake currently has four automatic aid agreements in place with neighbouring municipalities. The first agreement relates to Mewburn Road, which connects the Town of Niagara-on-the-Lake to the City of Niagara Falls. The bridge along this road was at one time deemed unfit for vehicular travel. There are dwelling units that reside within the City of Niagara Falls boundaries; however, due to this bridge being unsuitable for travel, emergency response to these properties would be delayed beyond acceptable margins. It was agreed upon that Niagara-on-the-Lake Fire & Emergency Services would respond to assist with any emergency response requirements to those properties affected until the bridge was repaired. The bridge was restored in the summer of 2020; however, it was agreed that the automatic aid agreement should remain in place.

The second automatic aid agreement is between the Town of Niagara-on-the-Lake and the City of St.Catharines. The agreement is specific to a section of the Queen Elizabeth Way (QEW) highway, which connects Niagara-on-the-Lake and St.Catharines. Due to the nature of the highway and the placement of on/off ramps, when an incident is reported between the Glendale Avenue on/off ramps, located in Niagara-on-the-Lake, and the Niagara Street on/off ramps, located in St.Catharines, both fire departments will be dispatched.

The third agreement is again between the Town of Niagara-on-the-Lake and the City of St.Catharines. This agreement is specific to water and ice rescue. With Niagara-on-the-Lake providing shore-based ice and water rescue, when an incident is reported involving rescuing someone or something in the water or on ice, St.Catharines Fire Service is automatically dispatched to assist as they can provide these services at the technician level.

A fourth automatic aid agreement exists, which relates to Hazardous materials incidents (HAZMAT) and Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) incidents within the Niagara Region. Beyond the MOU regarding provincial resources, HAZMAT and CBRNE incidents within the Niagara Region are handled through an automatic aid agreement between the Town of Niagara-on-the-Lake and the 11 other area fire departments. The Niagara-on-the-Lake Fire & Emergency Services currently provides HAZMAT response at the awareness level only. The agreement permits any municipality within the Niagara Region to request assistance concerning a HAZMAT or CBRNE incident from those departments that provide hazardous material responses at a technician level or higher.

Community Risk Reduction

The Community Risk Reduction Division within the Niagara-on-the-Lake Fire & Emergency Services provides all fire prevention and life safety education services for the Town. This includes:

- All fire inspection services to maintain the council approved pro-active inspection schedule ([Appendix A](#)); to stay compliant with Ontario Regulation 365/13: Mandatory Assessment of Complaints and requests for Approval, and to remain compliant with Ontario Regulation 364/13: Mandatory Inspection – Fire Drill in Vulnerable Occupancies.
- All public education activities including; attending community events, completing the department's smoke alarm program and maintaining the department's social media channels, fire investigation services, and plans examination services. Every municipality within Ontario must establish a public education program. As described within the Fire Protection and Prevention Act, S.O. 1997, Chapter 4, as amended, every municipal must provide a public education program.
- All fire investigation activities, including determining fire origin and cause.

In addition to the listed services, the Community Risk Reduction Division also oversees all Emergency Management responsibilities for the Town, including maintaining emergency response documents relating to mitigation, preparation, response, and recovery while promoting emergency management education and awareness.

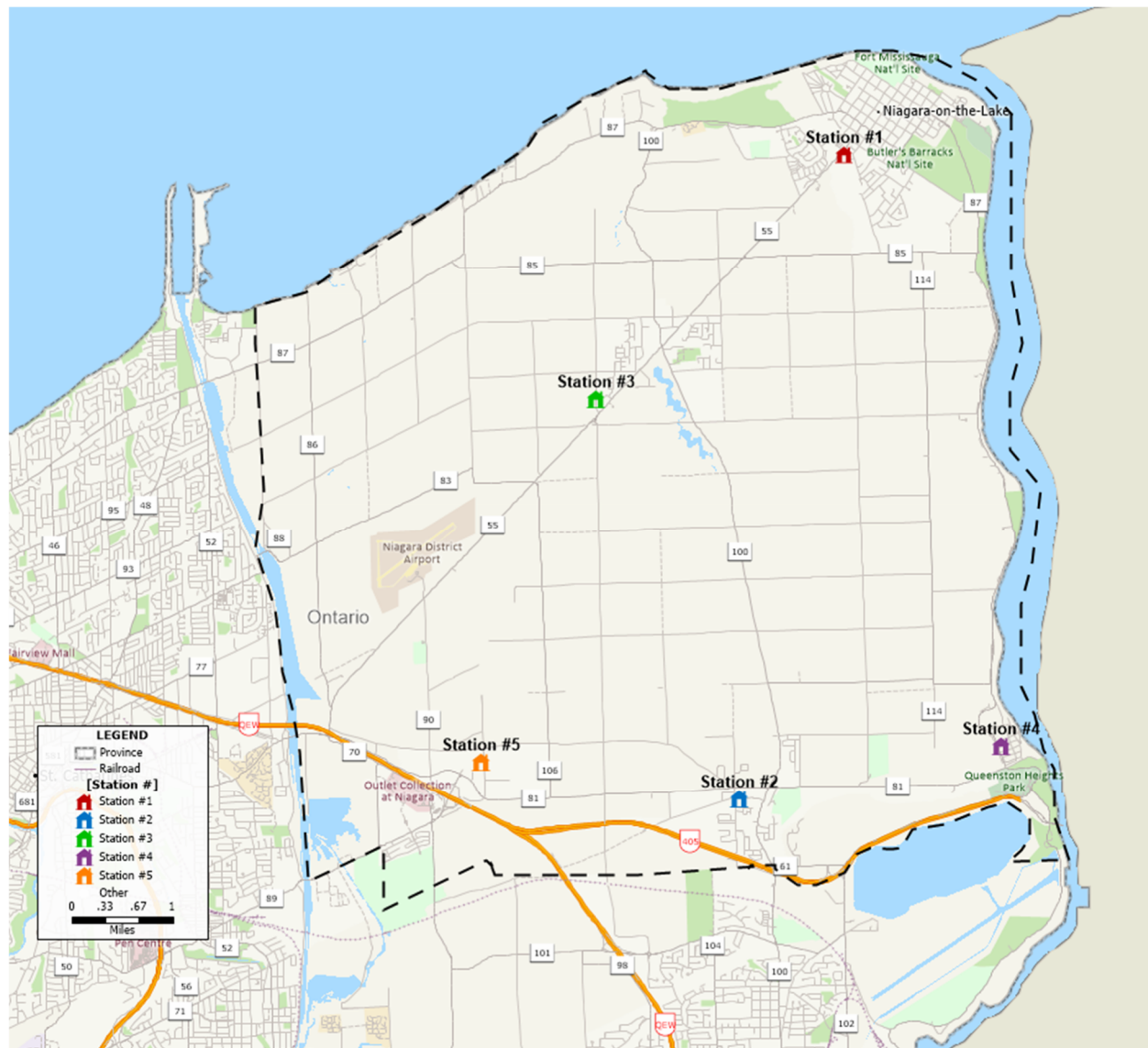
Lastly, the Community Risk Reduction Division also oversees and prepares all data analytics for decision support across all other Department areas.

Assets and Resources

Fire Stations

Niagara-on-the-Lake Fire & Emergency Services responds out of five fire stations, each located within one of the five urban areas in Niagara-on-the-Lake. Stations range from approximately 10 to 45 years in age.

FIGURE 16: NIAGARA-ON-THE-LAKE FIRE STATION LOCATIONS



Fire Station 1 – Old Town

Located at 22 Anderson Lane, Fire Station 1 primarily serves the urban area of Old Town. This area features the Town's historic downtown, a large residential zone, and several large hotels and wineries. The historic downtown area is one of the main tourist attractions within the municipality. The station, built-in 2000, is approximately 10,000 ft² and has three drive-through apparatus bays. The station is equipped with a separate bunker gear room, storage rooms, equipment maintenance room, breathing air bottle refilling station, training room, kitchen, and washrooms with one shower. The facility also contains two offices and a museum. The station contains two extractors for gear cleaning and had a direct capture exhaust system installed in 2023, connecting all apparatus kept in the apparatus bay.



FIGURE 17 - OLD TOWN, STATION #1

Staffing

Fire Station 1 currently has 25 volunteer firefighter roster spots. This consists of a District Chief, an Assistant District Chief, a Captain, a Lieutenant, and 21 firefighters.

Apparatus ([Appendix B](#))

The apparatus located at Station 1 include:

- 2010 Spartan Pumper (Pump 1)
- 2017 Ford F-350 Squad (Squad 1)
- 2020 Rosenbauer 101' rear mount platform (Ladder 1)
- 2022 Freightliner Tanker (Tank 1)

Challenges

Fire Station 1's challenges mainly involve maintaining a full roster. Fire Station 1 has not been able to maintain a full complement for the last five years. The main contributing factors to this are the town's demographics and lack of affordable housing. The average Niagara-on-the-Lake home price was \$851,300¹⁹ in the Fall of 2020. This statistic,

¹⁹ [Niagara home sales prices took another big jump in October | StCatharinesStandard.ca](#)

however, encompasses all of Niagara-on-the-Lake. A review of realtor.ca²⁰ reveals that most homes within Old Town are well over that average. Due to this, most people who can afford these properties are established older individuals who are not interested in volunteering for the fire department. This observation is supported by the average number of applicants we receive specific to the Old Town area when recruiting for new volunteer firefighters. The younger generation who typically applies to become a volunteer either rents or lives at home with their family. As time passes, these individuals also seek to own their homes which typically results in them moving out of district or out of town altogether.

²⁰ [Real Estate Listings in Canada: houses, condos, land, property | REALTOR.ca](https://www.realtor.ca)

Fire Station 2 – St.Davids

Located at 745 Warner Road, Fire Station 2, built-in 1984, serves the urban area of St.Davids and surrounding rural areas. The area served by this station is primarily residential, surrounded by agricultural land. Fire Station 2 responds to incidents along the 400 series highways stretching across the municipality's southern boundary. The station is approximately 7,000 ft² and has three bays with one drive-through bay, an office, and a training room. Within the station is a small book drop-off area for the Niagara-on-the-Lake Library. The station contains an extractor for gear cleaning and had a direct capture exhaust system installed in 2023, connecting all apparatus kept in the apparatus bay.



FIGURE 18: ST.DAVIDS, STATION #2

Staffing

Fire Station 2 currently has 20 volunteer firefighter roster spots. This consists of a District Chief, an Assistant District Chief, a Captain, a Lieutenant, and 16 firefighters.

Apparatus ([Appendix B](#))

The apparatus located at Station 2 include:

- 1997 Freightliner Pumper (Pump 2A)
- 2016 Spartan Pumper (Pump 2)
- 2019 Kenworth Tanker (Tank 2).

Challenges

Fire Station 2's challenges again involve the station's roster spots. While the station is at full complement typically, annual turnover in members has created the need to recruit almost yearly to stay at full complement. Similar issues involving demographics and lack of affordable housing are found within St.Davids. Additional challenges within St.Davids include the age of the station. The station is nearing 40 years old and requires increased funding for building maintenance.

Fire Station 3 – Virgil

Located at 1391 Concession 6 Road, Fire Station 3 was built in 2010. Located within the urban area of Virgil, the area served consists of a mix of residential, commercial, industrial and agricultural uses. The station is approximately 10,300 ft² with three drive-through double-deep apparatus bays. The station is equipped with a separate bunker gear room, equipment maintenance room, training room, gym, and washrooms with showers. The station also contains two offices for the station officers and a kitchen. The station contains two extractors for gear cleaning and had a direct capture exhaust system installed in 2023, connecting all apparatus kept in the apparatus bay.



FIGURE 19: VIRGIL, STATION #3

Staffing

Fire Station 3 currently has 25 volunteer firefighter roster spots. This consists of a District Chief, an Assistant District Chief, 2 Captains, a Lieutenants, and 20 firefighters

Apparatus ([Appendix B](#))

The apparatus located at Station 3 include:

- 2003 Kenworth Pumper (Pump 3)
- 2013 Kenworth Tanker (Tank 3)
- 2020 Ford F-250 Squad (Squad 3)
- 2021 Spartan Metro Star Rescue Pumper (Rescue 3)
- 1953 Chevrolet / Bickle-Seagrave Pumper. This apparatus is an antique piece used for public education events.

Challenges

Fire Station 3 is one of the best-staffed stations within the Town. There are rarely any staffing concerns as Virgil is one of the more affordable locations in Town. The average age of residents within Virgil is also lower than the other areas of Town, making it easier to attract new volunteers. A challenge faced by Virgil, however, is the increased call volume they are experiencing. With over 200 calls a year on average, this can put a strain on the volunteer firefighters.

Fire Station 4 – Queenston

Located at 5 Dumfries Street in the urban area of Queenston, Fire Station 4 was built in 1977. The 5,200 ft² building is the oldest of the fire stations in Niagara-on-the-Lake. Queenston is primarily a residential area with some agricultural land surrounding it. Protected by Fire Station 4 is a 400 series highway, a power generation station for Ontario Power Generation and the international bridge between Lewiston, New York, and Queenston, Ontario. Fire Station 4 features two apparatus bays with the bunker gear stored at the back on the apparatus floor. The station also has a training room, kitchen, and an office. The station contains an extractor for gear cleaning and had a direct capture exhaust system installed in 2023, connecting all apparatus kept in the apparatus bay.



FIGURE 20: QUEENSTON, STATION #4

Staffing

Fire Station 4 currently has 20 volunteer firefighter roster spots. This consists of a District Chief, an Assistant District Chief, a Captain, a Lieutenant, and 16 firefighters.

Apparatus ([Appendix B](#))

The apparatus located at Station 4 include:

- 2004 Kenworth Rescue (Squad 4)
- 2011 Spartan Pumper (Rescue 4)

Challenges

Fire Station 4 challenges are very similar to those of Fire Station 2. While the station is at full complement typically, many station members are older and are set to retire within the next few years. This has created the need to recruit almost yearly to ensure a full complement will be maintained in the future. Similar issues involving demographics and lack of affordable housing are found within Queenston. In addition, the station is nearing 50 years old, resulting in increased maintenance and repair costs.

Fire Station 5 – Glendale

Located at 350 Townline Road, Fire Station 5 serves the Outlet Collection Mall, Niagara College campus, White Oaks Resort, other hotels, light industry/commercial developments, and a dense residential development. This station also serves segments of a 400 series highway. Built in 2005, this station is approximately 9,000 ft² with three double-deep apparatus bays. The station is equipped with a separate bunker gear room, equipment maintenance room, training room, washrooms with showers, two offices for the station officers, a kitchen, and a gym. The station contains two extractors for gear cleaning



FIGURE 21: GLENDALE, STATION #5

Staffing

Fire Station 5 currently has 20 volunteer firefighter roster spots. This consists of a District Chief, an Assistant District Chief, a Captain, a Lieutenant, and 16 firefighters.

Apparatus ([Appendix B](#))

The apparatus located at Station 5 include:

- 2007 Spartan 105' rear mount (Ladder 5)
- 2022 Spartan Metro Star Rescue Pumper (Rescue 5)
- 2022 Freightliner Tanker (Tank 5)

Challenges

The challenges present within the Glendale area are related to attracting firefighters. The residential area within Glendale is located close to the college. Consequently, a considerable percentage of this area is student housing. These students typically are not long-term residents; therefore, not ideal candidates to be relied upon for volunteer firefighting. Beyond the one residential community, all other residential lots are located within the rural areas served by the station. Consequently, there are not many residents who live close to the fire station. As a result, most firefighters within this station are coming from further distances away compared to volunteer firefighters assigned to other stations.

Headquarters

Headquarters is located within the Operations Building directly behind Town Hall on Four Mile Creek Road in Virgil. The office space is on the mezzanine level in the rear section of the building. Access is gained through various corridors. This space currently is not accessible to the public unless escorted by a staff member. The area is comprised of 12 cubicles and a small meeting room, which is all shared with the Municipal Enforcement Division.



RED HIGHLIGHTED AREA
SHOWS THE APPROXIMATE
AREA OF THE BUILDING
WHERE THE NIAGARA-ON-
THE-LAKE FIRE
EMERGENCY SERVICES
HEADQUARTERS IS
LOCATED.

FIGURE 22: HEADQUARTERS

Staffing

All Administrative Staff operate out of Headquarters. This includes the Fire Chief, the Deputy Fire Chief, the Chief Fire Prevention Officer, the Fire Prevention and Education Officer, the Fire Inspector/Program Administrator, the Training Officer, and the Fire Program Administrator.

Apparatus ([Appendix B](#))

Vehicles located at or assigned to staff include

- 2017 Ford Explorer (Car 1)
- 2018 Ford F-150 (Car 5)
- 2019 Ford F-150 (Car 3)
- 2020 Ford Expedition (Car 2)
- 2023 Ford Escape Plug-in Hybrid (Car 4)

Challenges

Headquarters is currently located on a mezzanine level above the Town's Operations Building lunchroom. The space currently occupied is not accessible to the public. Staff vehicles are kept out front of the Operations Building, approximately a one-minute walk from the offices. During an emergency call, staff can respond directly to incidents if required. The training officer, prevention officer and program administrator are also volunteer firefighters. They respond from headquarters to their assigned station.

Training

Standards

The Niagara-on-the-Lake Fire & Emergency Services Firefighter Training Program is designed to provide firefighters with the required training in accordance with the most current standards. The training program utilizes the International Fire Service Training Association (IFSTA) curriculum to meet the National Fire Protection Association (NFPA) Standards.

Firefighter training is the direct responsibility of the Deputy Fire Chief the assistance of a Training Officer and in consultation with the Training Committee. The Training Committee, who operate in accordance with the committee terms of reference, is comprised of the Deputy Fire Chief, Training Officer and a Training Coordinator from each fire station who represents their station on the committee and who are responsible for coordinating the delivery and documentation of training at their station.

Delivery

The training program utilizes IFSTA training materials, prepared lesson plans, prepared training safety plans, NFPA standards, Niagara-on-the-Lake Fire & Emergency Services Standard Operating Guidelines (SOGs) and Ontario Fire Service Section 21 Guidance Notes to assist instructors in delivering the training to Niagara-on-the-Lake firefighters during their initial recruit training, on an on-going basis as part of a firefighter training curriculum, during the development of officers and during specialized training & courses.

The Niagara-on-the-Lake Fire & Emergency Services Training Program can be broken down into seven different sections:

- Recruit Firefighter Training
- Firefighter Training Curriculum (on-going skills maintenance training)
- Patient Care Training
- Specialized Courses/Training
- Apparatus Driving & Operations
- Officer Development
- New Equipment/New Skills Training

All ongoing skills maintenance training occurs weekly on Monday nights, typically from 7 pm to 9 pm. Topics covered during this training will include all mandatory topics that every firefighter shall ensure is complete and a number of elective subjects. If a Monday happens to fall on a holiday, each station has the ability to reschedule their training to the following night or cancel the training.

All other training topics are typically scheduled on weekends or evenings, providing flexibility for all firefighters. To ensure firefighters receive adequate training, a standard year is broken down into quarters, each representing three months. Each quarter then contains mandatory topics which all firefighters are expected to complete. If a firefighter

misses a topic during that quarter, they are to catch up on it either at a different station or within the next quarter. A list of training curriculum topics has been provided within [Appendix C](#).

Since training occurs every week, all curriculum based quarterly topics are able to be covered. Stations are then able to train on additional elective subjects for the remaining evenings during that quarter. Elective topics can include equipment familiarization, pre-planning local buildings, etc.

Training Records

Training records are currently saved through the Department's records management system. Hard copies of certificates are scanned and kept with the Department's electronic records.

All training records from ongoing maintenance training events are documented by recording all firefighters who participated in training and those who met the outlined learning objectives. This training attendance record is then attached to the lesson plan containing the learning objectives and retained at the station with a copy of the attendance record submitted to the administration office. The training attendance is then input into the records management system to maintain adequate training records for each firefighter.

As outlined within the Attendance Policy, firefighters must attend a minimum of 60% of training in addition to ensuring all mandatory training is covered.

Certifications

All firefighters serving the Niagara-on-the-lake Fire & Emergency Services are trained to NFPA 1001 Standards, Level I & II, with most holding these certifications. Many additional suppression members have completed their NFPA 1031, Fire Inspector Level I qualifications, NFPA 1035, Fire and Life Safety Educator, Level I qualifications, along with NFPA 1072, Hazard Material, Awareness & Operations Level.

Members of the Niagara-on-the-Lake Fire and Emergency Services collectively hold nearly 340 NFPA certifications. This includes:

- 87 members certified to NFPA 1001, Firefighter Level I & II
- 87 members certified to NFPA 1072, Hazmat Awareness Level
- 86 members certified to NFPA 1072, Hazmat Operations Level
- 48 members certified to NFPA 1002, Fire Apparatus Driver / Operator
- 26 members certified to NFPA 1041, Fire Instructor Level I
- 27 members certified to NFPA 1035, Fire & Life Safety Educator, Level I
- 16 members certified to NFPA 1021, Fire Officer Level I
- 6 members certified to NFPA 1021, Fire Officer Level II
- 4 members certified to NFPA 1031, Fire Inspector Level I
- 3 members certified to NFPA 1033, Fire Investigator

- 2 members certified to NFPA 1021, Fire Officer Level III
- 2 members certified to NFPA 1021, Fire Officer Level IIII

Dispatch and Radios

The current radio system used by Niagara-on-the-Lake Fire & Emergency Services is an analog system operating from a single antenna site located on top of the Virgil water tower, with a backup site in St.Davids. Dispatch services for Niagara-on-the-Lake Fire & Emergency Services are provided under contract by the St.Catharines Fire Services Dispatch Centre. This dispatch centre currently provides dispatch services for 16 different municipalities and counties.

All volunteer firefighters, including the Fire Chief and Deputy Chief, carry a pager with them at all times. The pager is activated by the communications staff within the St.Catharines Fire Services Dispatch Centre, when a call for assistance by the Fire Department is received. A signal is sent from the dispatch centre to the Virgil water tower antenna, which forwards the signal to volunteer firefighter pagers. The members are then alerted of an emergency and respond to their respective stations. Not all stations within Niagara-on-the-Lake are required to respond to every call for assistance. As such, only those stations identified within the run cards are alerted to the emergency call.

The hardware currently owned and in operation within Niagara-on-the-Lake include:

- 120 pagers
- 85 portable radios
- 5 base radios
- 20 mobile radios
- 4 range extenders
- 2 fixed repeaters
- 2 digital P25 radios for mutual aid purposes

As noted, our dispatch services are under contract through the City of St.Catharines Fire Services; thus, Niagara-on-the-Lake Fire & Emergency Services cannot control how they perform and what standards they hold themselves accountable to. However, through information received by the St.Catharines Dispatch Centre, St.Catharines strives to achieve the following performance metrics:

- Emergency Call Answering
 - 15 Seconds 95% of the time – Identified within NFPA 1710
 - 20 Seconds 95% of the time – Identified within NENA & NFPA 1221
 - 40 Seconds 99% of the time – Identified within NFPA 1710
- Call Processing
 - 64 Seconds 90% Emergency Calls – Identified within NFPA 1710

All communication officers within the St.Catharines dispatch centre are also trained and certified to NFPA 1061 I & II, Standard for Public Safety Telecommunications Personnel Professional Qualifications.

Additional standards that can apply to dispatching services include:

- National Emergency Number Association (NENA), NENA Standard for 9-1-1 Call Answer, NENA-STA-020.1-2020
- NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments
- NFPA 1221, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems
- FPPA reporting standards.

St.Catharines currently attempts to maintain all dispatching equipment to NFPA 122, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems. Within Chapter 10 Computer-Aided Dispatching (CAD) Systems, the standard's performance measures indicate the system shall recommend units for assignment to calls. St.Catharines currently does not manually retrieve response recommendations.

Within their CAD systems, everything starts with a response plan and a response area. A response plan is a set of responses that is in effect at any given time. These are established by the partner fire administration and documented in Excel files. When an incident is dispatched, the system evaluates certain parameters and recommends, to the dispatcher, which apparatus should be sent. A complement of apparatus is comprised of two components:

1. Slot Types:

Each slot type is a basic characteristic of an apparatus. This includes apparatus type or a specific apparatus.

2. Metrics:

Each slot type has its own set of metrics used to determine its "fitness" for this recommendation. This includes apparatus type, response area, and status (in or out of service).

A response area is the area (Niagara-on-the-Lake) in which the response plan is built. These are dependent upon response time and water supply. When a 911 call arrives at the dispatch centre, it interfaces with the ANI/ALI data, which plots it on their CAD GIS map based on the 911 address centerline area for Niagara-on-the-Lake. The dispatcher then selects the CAD determinant for the nature of the call for service (grass fire, structure fire, etc.), bringing up the Niagara-on-the-Lake Fire & Emergency Services recommendations. However, during a received call, the dispatcher can manually override this system.

Existing Maintenance Programs

Fleet Maintenance

Fleet maintenance and repairs are divided between two primary contracted service providers. Drivetrain, chassis, and commercial motor vehicle inspections are completed through Peninsula Diesel. Each apparatus is serviced once annually and then as required throughout the year. The annual service includes the commercial motor vehicle certification and any repairs or preventative maintenance identified before scheduling.

The second contracted service provider is Ontario Fire Truck, which serves as the Department's Emergency Vehicle Technician. Ontario Fire Truck schedules a monthly visit where inspections occur and identified requisite repairs are completed. In addition to the scheduled monthly visits, Ontario Fire Truck conducts the NFPA pump testing, ground ladder testing, aerial ladder service, and roll-up door servicing on all apparatus.

In addition to Fleet Maintenance, the Niagara-on-the-Lake Fire & Emergency Services currently follows an Apparatus Replacement Schedule ([Appendix D](#)) to ensure all apparatus remain current and within the permitted timelines for front line or reserve apparatus use for citizen insurances purposes.

Equipment

All Niagara-on-the-Lake Fire & Emergency Services equipment is subject to the inspection, testing, preventative maintenance, and repairs as outlined in the Standard Operating Guideline for Inspection, Testing, Preventative Maintenance and Repairs to Service Equipment.

Fire Hydrants

All fire hydrants within Town are flow tested and maintained by the Town of Niagara-on-the-Lake Municipal Water Department. All hydrants within the community were recently flow tested, flushed, painted and had new reflective identifying rings added within the last three years. The municipal water department maintains all hydrants to the standards identified within the Ontario Fire Code and NFPA 291, "Recommended Practice for Fire Flow Testing and Marking of Hydrants."

Fire Underwriters Survey

Fire Underwriters Survey™ (FUS) is a national organization administered by OPTA Information Intelligence. FUS provides data on public fire protection for fire insurance statistical work and underwriting purposes of subscribing insurance companies. Subscribers of FUS represent approximately 85 percent of the private sector property and casualty insurers in Canada.

In the summer of 2020, the Niagara-on-the-Lake Fire & Emergency Services completed a full assessment with FUS to ensure that the information they had was current and accurate. This review included having FUS review nearly every aspect of the department. Once this review was complete, FUS reviewed the information collected and provided an updated report used to assist in determining insurance rates within the community.

Additionally, in the Fall of 2023, the Department was awarded a certificate of accreditation, identifying that it was able to deliver an alternative water supply for public fire protection via Superior Tanker Shuttle. This means that the Department is able to provide a level of service equivalent to that in the area of Town with fire hydrants, in the rural areas where there are no fire hydrants. In addition to achieving this certification, the Department were able to achieve the commercial line of the accreditation, meaning the Department was able to flow 400 imperial gallons per minute (GPM) for at least an hour.

The Fire stations specifically identified as achieving the accreditation are those with tanker apparatus housed within them. Within Niagara-on-the-Lake, this accounts for Station 1, 2, 3 and 5.

Stakeholder Surveys

In the summer of 2020, the Niagara-on-the-Lake Fire & Emergency Services employed a third-party consultant to create a Fire Master Plan for the Department. As part of creating this document, the consultant conducted surveys for internal stakeholders such as full-time staff and volunteer firefighters and external stakeholders such as Council and the public.

Internal and external surveys were created and distributed to all those willing to participate. An internal survey was emailed directly to all Fire Department members, while external surveys were advertised through local media and were made available through the Town's website.

Internal Surveys

The information received from the internal surveys identified the following:

- Many of the Staff are proud of the service they offer to the community, appreciate the effort put forth by the members, and believe that the community feels that they are served by a professional and dedicated group of firefighters.
- Overall, the firefighters feel they have adequate facilities to work out of and a good variety of equipment to do their jobs.
- There were concerns expressed with equipment failures such as the SCBA and poor radio communications.
- Training was a common issue within the responses. Many would like more opportunities to receive training and a wider variety such as officer training, professional (non-fire related), and succession planning opportunities.
- Compensation for the firefighters should be reviewed and consistently compared to other fire departments in the area.
- There needs to be enhanced education to the residents that the department is staffed by "volunteers" and what the green lights stand for in their vehicles.
- The Department is heading in a positive direction under the new administration.
- Some firefighters would like to see a performance review of the firefighters, not just credit for attendance.
- The firefighters would like to be more involved with public education and believe the Department should have a dedicated Public Fire Life Safety Educator (PFLSE).
- The top three significant challenges for Niagara-on-the-Lake Fire and Emergency Services are the anticipated growth occurring in Niagara-on-the-Lake, volunteer firefighter recruitment and retention, and the assurance of properly trained and equipped staff in meeting response challenges.
- The top three services that they feel are a priority to the community are:

- Firefighting
 - Auto extrication
 - Medical responses
- Responses addressing what the department might look like in 10 years included:
 - A high-performing, progressive and visionary department, leading in service provision while maintaining the volunteer firefighter model.
 - The amalgamation of Stations 2 & 4
 - A new fire administration centre
 - The Department operating as one organization (not as individual stations)

External Surveys

Input from the community is vital, as it gives the Fire Department an accurate indication of how the public perceives the Department and the suggested areas for improvement from residents with first-hand interaction with the service.

Thirty-two respondents submitted responses. Much of the information received from the external surveys identified that the Fire Department has the following attributes:

- For a small community, the fire department is well equipped.
- Very professional, reliable, and competent.
- Engaged with the community.
- Excellent service provision for a volunteer department.
- Firefighters are very community-focused and committed to serve.
- Those that have attended a public education event found it to be very informative, and all questions were answered well.

The following input was received:

- The top three services noted by external respondents are:
 - Fire Fighting
 - Medical assist and response
 - Auto extrication
- Responses addressing what the department might look like in 10 years included:
 - Fire station placement to improve response time
 - Full-time firefighters
 - Increased level of public education on fire safety and prevention
 - Ensure the seniors demographic is educated on fire safety
 - Green flashing light campaigns to inform the public on what they are for and who uses them

- Engagement with the public, both in-person and through social media outlets
- Council maintains funding for training and equipment
- Increased diversity during recruitments
- Decrease the number of fire stations while increasing the number of firefighters assigned to each station

Community Expectations and Performance Goals

Strategy Plan 2021 – 2025

After completing a Fire Master Plan in the Fall of 2021, and the adoption from the Municipal Council shortly afterwards, Niagara-on-the-Lake Fire & Emergency Services prepared a strategic plan. The intent of this document was to clearly define goals and objectives and an overall vision for the Department into the foreseeable future. The three primary goals and objectives of the strategic plan include:

- Optimize the Volunteer Service Delivery Model
- Service Excellence & Continuous Improvement
- Focused Resource Management

These three goals and objectives will be achieved through eight associated initiatives followed by 32 strategic actions.

Identifying Niagara-on-the-Lake Fire & Emergency Services' critical issues and service gaps were an essential element of this strategic plan. To create a thorough and comprehensive strategic plan, the department completed a full SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis. This analysis was undertaken to candidly identify both positive and less-than-desirable attributes of the organization. Niagara-on-the-Lake Fire & Emergency Services participated in this activity to record strengths and weaknesses, as well as the possible opportunities and potential threats, in the interest of continuous improvement. No less than 12 items were identified for each section of the SWOT.

A full copy of the Fire & Emergency Services 2021 – 2025 Strategic Plan is available through the Fire Department's webpage.



COMMUNITY RISK ASSESSMENT:

Niagara
-on-the-**Lake**
EST. 1781

2023

Community Risk Assessment

Introduction

On July 1, 2019, Ontario Regulation 378/18: *Community Risk Assessments* came into effect. This Ontario Regulation requires that every municipality and every fire department in a territory without municipal organization complete and review a community risk assessment. The regulation also states that the community risk assessment must be used to make informed decisions regarding the provision of fire protection services.

The community risk assessment is a process of identifying, analyzing, evaluating, and prioritizing risks to public safety. The information gathered within the assessment is to be used as a directional tool to assist in planning future fire prevention, fire education and fire suppression activities within the community.

Through Ontario Regulation 378/18, nine mandatory profiles must be considered as part of the assessment. These mandatory profiles include:

- Geographic Profile
- Building Stock Profile
- Critical Infrastructure Profile
- Demographic Profile
- Hazard Profile
- Public Safety Response Profile
- Community Services Profile
- Economic Profile
- Past Loss and Event History Profile

Niagara-on-the-Lake Fire & Emergency Services has gathered and analyzed the required information pertaining to the mandated profiles. This information has been prepared into reports, charts, and schematics to effectively demonstrate the risks present within our community.

As required by Ontario Regulation 378/18, the risk assessment, once complete, is to continually be reviewed on an annual basis, ensuring that all information is up to date and relevant.

Mapping has been created to identify all Low, Medium, and High risks across the community based on the findings of this Community Risk Assessment. This mapping can be found within Appendix A, attached at the end of this document.

Assessing Risk

The Community Risk Assessment identifies the risks that may exist within Niagara-on-the-Lake. Once complete, the findings of this risk assessment are then applied and used to assist in making decisions surrounding suppression service levels, fire prevention efforts and public fire education messaging for the Fire Department. Council has the authority to establish the level of fire protection within the municipality. The Fire Chief is responsible for informing Council of all risks existing within the municipality. Based on this information, Council can then make an informed decision on the level of service to be achieved.

There are two basic risk categories associated with the fire service – **operational risk** and **organizational risk**. Managing operational risk is the responsibility of Niagara-on-the-Lake Fire & Emergency Services by identifying the risks within the community and planning strategic, tactical, and task-oriented strategies to mitigate risk. Organizational risk is a function and responsibility of Council, determining the disciplines, level of service, staffing, stations, and approval of the department business plan based on the overall risk assessment of the municipality. The primary focus of this Community Risk Assessment is to determine the operational risks so that the organizational risks can be reviewed.

Prioritizing Risk

When assessing the various risk levels within the community, the Niagara-on-the-Lake Fire & Emergency Services use a 2-axis approach. The first axis is to identify the probability of an incident occurring. The probability of a fire or emergency event occurring in town is based upon previous Niagara-on-the-Lake Fire & Emergency Services incidents as well as incidents from similar-sized communities and statistics obtained through provincial databases.

The second axis in the assessment determines the associated consequence level from a fire or emergency event occurring. This determination is based on the potential loss or adverse effects of an incident on the community.

Lastly, the assigned risk level is determined by cross-referencing the probability and consequence levels within the associated risk matrix. Once the assigned risk level has been determined for a specific building, property, or geographical area, it can be prioritized from high to low.

The following probability and consequence matrixes are based upon the Ontario Fire Marshal and Emergency Management (OFMEM) Fire Risk Models. The resulting assigned risk level matrix (Figure 1) is also based upon the OFMEM Fire Risk Models.

Probability Risk Levels

Rare – Level 1

- It may occur in exceptional circumstances
- No incidents in the past 15 years

Unlikely – Level 2

- It could occur at some time, especially if circumstances change
- 5 to 15 years since the last incident

Possible – Level 3

- It might occur under current circumstances
- One incident in the past five years

Likely – Level 4

- It will probably occur at some time under current circumstances
- Multiple or recurring incidents in the past five years

Almost Certain – Level 5

- It is expected to occur in most circumstances unless circumstances change
- Multiple or recurring incidents in the past year

Consequence Risk Levels

To establish a consequence risk level, four components should be considered:

1. **Life Safety** – any injuries or loss of life to anyone involved, public and firefighters (includes actual or potential situations)
2. **Property Loss** – the dollar loss relating to public and private buildings, contents, irreplaceable assets, significant/symbolic landmarks, and critical infrastructure
3. **Economic Impact** – monetary losses associated with income, business closures, a downturn in tourism, tax assessment value, loss of employment
4. **Environmental Impact** – harm to humans, vegetation, and animals; the decline in quality of life due to air/water/soil contamination as a result of either the fire or fire suppression operations

The consequence risk level is then categorized according to five severity levels:

Insignificant – Level 1

- No or insignificant consequences to life safety, the value of property loss, impact on the local economy or the general living conditions

Minor – Level 2

- Potential life safety risk to occupants is low, minor property loss or disruption to business or general living conditions

Moderate – Level 3

- A threat to the life safety of occupants, a moderate loss of property, the threat to loss of business, or could pose a threat to the environment

Major – Level 4

- Large dollar loss with significant property loss, a large threat to local commerce and tourism, impacts the environment that would result in short term evacuations

Catastrophic – Level 5

- Significant loss of life, multiple properties with significant damage, long term disruption of business, employment, and tourism, along with environmental damage resulting in long term evacuations of residents and businesses

FIGURE 23 - ASSIGNED RISK LEVEL TABLE

Probability	Level 5 Almost Certain	Moderate	Moderate	High	High	High
	Level 4 Likely	Moderate	Moderate	Moderate	High	High
	Level 3 Possible	Low	Moderate	Moderate	Moderate	High
	Level 2 Unlikely	Low	Low	Moderate	Moderate	Moderate
	Level 1 Minor	Low	Low	Low	Moderate	Moderate
		Level 1 Insignificant	Level 2 Minor	Level 3 Moderate	Level 4 Major	Level 5 Catastrophic
	Consequence					

Risk Treatment Levels

Once a risk level has been assigned to the items identified within the profile, an option for treating the risk can be considered. Within Niagara-on-the-Lake, the process of reviewing risk treatment is ongoing. While development and town growth continue, options for treating the risk are also ever-evolving. Through continuous improvement, risk treatment options can change or transfer from one treatment option to another. By continually reviewing all risks and updating all community risk assessments annually, all treatment options can be reviewed and confirmed to be the most effective to deliver customer service excellence to the residents within Niagara-on-the-Lake.

Risk Treatment levels that are considered:

1. Avoid the Risk
 - Avoiding the risk means implementing programs and initiatives to prevent a fire or emergency from happening.
2. Mitigate the Risk
 - Mitigating the risk means implementing programs and initiatives to reduce the probability and consequence of a fire or emergency.
3. Accept the Risk
 - Accepting the risk means that after identifying and prioritizing a risk, the fire department determines that no specific programs or initiatives will be implemented to address this risk. In this treatment option, the fire department accepts that the potential risk might happen and will respond if it occurs.
4. Transfer the Risk
 - Transferring the risk means the fire department transfers the impact or management of the risk to another organization or body. Contracting public fire safety education, Fire Code inspection and enforcement, or emergency response services to a neighbouring municipality or another organization are examples of transferring the management of risks to another body.

Geographic Profile

As outlined in Ontario Regulation 378/18, the geographic profile intends to review and analyze the risks present within the geography of Niagara-on-the-Lake. The geography within the Town's boundaries directly impacts the response and risk level involved while responding to emergencies. The geographic features also affect public education and prevention efforts. All physical features should be reviewed and considered, including large bodies of water, highways/road networks, waterways, railways, bridges and wild-land-urban interfaces.

Primarily known as a farming community, Niagara-on-the-Lake has many relevant geographic features when considering public safety risks. Physical features, such as the Niagara Escarpment, Niagara River, and Lake Ontario contribute to some of the more considerable public safety risks.

Water

Niagara-on-the-Lake is bordered by water on two sides of the Municipal boundaries. Lake Ontario is to the north, and the Niagara River is to the east. These large, distinct bodies of water present hazards to the public and responders during an emergency. Additionally, Niagara-on-the-Lake contains numerous creeks and streams throughout the municipality. Although these smaller waterways may not present the same hazards as Lake Ontario and the Niagara River, they still present risks to the public and emergency services personnel. Large irrigation ponds can be found on many farming/greenhouse operation properties. While most irrigation ponds exist on private property, the same challenges, hazards and risks are present as those found in creeks and streams. All of the aforementioned water features affect public education messaging from the fire department.

Probability Level: Likely

Consequence Level: Minor

Assigned Risk Level: Moderate

Transit – Road Network/400 Series Highways

Within Niagara-on-the-Lake, there are hundreds of kilometres of roadways forming the Town's roadway network. Within the urban boundaries, these roadways typically average a 50 km to 60 km speed zone. Outside of the urban boundaries, the average speed zone is between 70 km and 80 km. Running along the southern edge of the municipality are two 400 series highways. Highway 405 spans from the Queenston Lewiston Border, crossing to the Glendale urban area, then intersecting with the Queen Elizabeth Way (Q.E.W). The Q.E.W. spans from the southern municipal boundary at Niagara Falls, continuing to the western municipal boundary at St. Catharines. At this boundary line, the Garden City Skyway is located, allowing the Q.E.W. to cross the Welland Canal. Between the municipal road network and 400 series highways, the Town contains over 400 km of roadway. The Niagara-on-the-Lake Fire & Emergency Services responded to 153 motor vehicle collisions in 2019.

Probability Level: Almost Certain

Consequence Level: Moderate

Assigned Risk Level: High

Transit – Bridges

Niagara-on-the-Lake contains eight bridges that can require special technical rescue skills depending on the emergency incident that occurs on/under them. These bridges range in size from the Queenston Lewiston Bridge and Garden City Skyway to the small bridges crossing over creeks and streams.

Consequence Level: Moderate

Probability Level: Likely

Assigned Risk Level: Moderate

Transit – Airport

Niagara-on-the-Lake contains an airport which currently offers helicopter and plane tours to the public as a tourism initiative. The airport also offers daily round trips to Toronto, a flight school, and is beginning to accept larger commercial aircraft. The airport currently does not provide any in-house or onsite fire protection services. The airport is entirely reliant on the Niagara-on-the-Lake Fire & Emergency Services to assist in dealing with aircraft emergencies or suppressing a fire.

Probability Level: Likely

Consequence Level: Major

Assigned Risk Level: High

Transit – Rail

Niagara-on-the-Lake does not contain any rail lines; however, a very small section of rail passes within 50m (164ft) of the municipal boundary. This section is directly along the Niagara Escarpment, which slopes towards Niagara-on-the-Lake. This section of rail also travels over an overpass with a 400 series highway underneath. While the probability of a rail incident happening in this area would be very low, the consequences could be very high. The contents of the rail cars that pass through this area contain low to high hazard materials.

Probability Level: Minor

Consequence Level: Major

Assigned Risk Level: Moderate

Niagara Escarpment & Queenston Quarry

The Niagara Escarpment starts at the easternmost border of Niagara-on-the-Lake and extends nearly the entire length of the southern municipal boundary line. The escarpment contains many hiking trails, cliffs and dense forest. Numerous dwellings perch near the top of the escarpment, and many that lie directly at its base. Access to most areas of the escarpment is challenging to achieve.

The Queenston Quarry is a unique feature located within the municipal boundary. The quarry is vast in area covering approximately 250 acres. It sits on the Niagara Escarpment and contains many hills, valleys, canyons and forests. Like the rest of the escarpment, access to most of this area is difficult to access.

Probability Level: Possible

Consequence Level: Minor

Assigned Risk Level: Moderate

Farmlands & Forests

Most of Niagara-on-the-Lake's land is consumed by farmland and forests. These lands can have accessibility concerns along with terrain concerns. Getting into any forested areas would require either a small vehicle or having emergency personnel entering by foot. Farmlands are very similar as most of these areas are either vineyards or orchards. There are minimal hazards that exist within these areas.

Probability Level: Unlikely

Consequence Level: Minor

Assigned Risk Level: Low

Building Stock Profile

As detailed within Ontario Regulation 378/18, the building stock profile intends to review and analyze the risk within the different occupancy types present in Niagara-on-the-Lake. The existing structures and contents within Niagara-on-the-Lake present one of the most significant challenges to Niagara-on-the-Lake Fire & Emergency Services. The Town has a very diverse mix of buildings ranging in age from less than five years old to nearly 200 years old. Through this unique mixture of building stock, hazards are created and, in turn, should be identified. Through various studies conducted by the National Fire Protection Association, the Ontario Fire Marshal's Office, and numerous insurance/protection companies, newer buildings can spread fire up to eight times faster than older buildings. The occupancies within these buildings also add a hazard level that must be considered. A single-family dwelling presents a very different hazard compared to a retail store or distillery. By reviewing and identifying occupancy type and building age, Staff can determine what prevention or education efforts should be focused on and any special or technical suppression tactics that should be considered during an emergency response.

Through the Ontario Building Code, every building occupancy can be broken down into six major building classifications. Some classifications are then broken down further into divisions. These classifications include:

Group A

- A1 – Assembly intended for the Production and Viewing of the Performing Arts
- A2 – Assembly not elsewhere classified in Group A
- A3 – Assembly of the Arena type
- A4 – Assembly in which occupants are gathering in the Open Air

Group B

- B1 – Detention
- B2 – Care and Treatment
- B3 – Care

Group C

- Residential

Group D

- Business and Personal Service

Group E

- Mercantile

Group F

- F1 – High Hazard Industrial
- F2 – Medium Hazard Industrial
- F3 – Low Hazard Industrial

The age of buildings can play a significant role in identifying hazards within the municipality. When considering fire suppression activities, a brand-new house will burn approximately eight times faster than a home built 50 years ago. Tests completed by Underwriter Laboratories, a not-for-profit product safety testing and certification organization, found that an average-sized room furnished with modern residential products can become fully engulfed in flames in approximately three minutes. The same room, furnished with items from 50 years ago, took approximately 30 minutes to become fully engulfed. Many new buildings contain large open spaces that flow freely with fewer walls to separate areas. By comparison, buildings constructed 50 years ago were much more compartmentalized, with each purposeful room containing four walls and, in most cases, a door.

Over time life safety systems in buildings have improved significantly. Through the introduction of the Ontario Building Code and the Ontario Fire Code, life safety systems became mandatory in certain occupancies. These systems, ranging from fire alarms to sprinkler systems, have repeatedly proven to reduce the threat to life within a building.

Another hazard that exists, unique to Niagara-on-the-Lake, is the Old Town District comprised of dozens of heritage buildings. Queen Street, the main attraction in this area, has many heritage buildings alongside various newly constructed buildings. Most of these buildings are built only feet from each other, or in some cases, are touching. If a fire were to occur on Queen Street, firefighters would need to act and respond quickly and ensure the damage is contained.

A map outlining the Fire Department's response district and an approximate number of buildings per district has been provided within Appendix B.

The hazards associated with each occupancy, including the age of the building, have been identified, along with their assigned risk level.

A1 – Assembly intended for the Production and Viewing of the Performing Arts

These spaces are typically large and complex. They contain many different back-of-house areas ranging from dressing rooms to prop set up spaces. These occupancies also can include other minor occupancies ranging from offices (Group D) to restaurants or bars (Group A2). These buildings also bring in hundreds of visitors not familiar with these spaces. Within Niagara-on-the-Lake, there are several A1 occupancies, primarily located in Old Town.

Probability Level: Possible

Consequence Level: Major

Assigned Risk Level: Moderate

A2 – Assembly not elsewhere classified in Group A

Although the division's title may appear vague, this division is all-encompassing to include anything that other "A" divisions don't include. This group includes everything from restaurants with over 30 people to schools, and from places of worship to libraries. While the specifics can differ in how the building is used, they contain many similar features. These spaces accept large numbers of people who typically are not familiar with the setting. They usually contain many combustible items like tables, seats, shelving units, fabrics, etc. Some spaces contain food prep areas with kitchen accessories or appliances, and most include rooms for small individual uses like offices or storage closets. The Ontario Building Code and Ontario Fire Code require life safety features to be installed in most of these spaces, typically due to their size. Niagara-on-the-Lake contains over 100 different A2 buildings located within all five urban areas and many outside the urban areas.

Probability Level: Likely

Consequence Level: Moderate

Assigned Risk Level: Moderate

A3 – Assembly Occupancies of the Arena Type

Niagara-on-the-Lake contains two arenas located within the same facility. One section of the facility is much older than the other. Arenas are buildings intended to bring in large groups with limited familiarity with the building's layout. Generally, the spaces are not overly complex but can contain several low-hazard utility rooms, change rooms, and locker rooms underneath grandstands. In Niagara-on-the-Lake, the arena is located in Virgil.

Probability Level: Unlikely

Consequence Level: Moderate

Assigned Risk Level: Moderate

A4 – Assembly Occupancies in which occupants gather in the Open Air

Niagara-on-the-Lake does not have any permanent A4 occupancies. The Town has experienced previous large-scale special events in which large stages were set up to create a temporary A4 occupancy—these isolated scenarios present risk by inviting tens of thousands of people into town. Alcohol is typically served at these events and, in most cases, includes fenced areas containing large groups. Other challenges faced with these events include parking and emergency access. With no permanent locations in Town, a risk level will not be assigned for this property type. Any future large-scale events held in Town shall be evaluated on a case-by-case basis.

B1 – Detention

Niagara-on-the-Lake does not contain a Group B, Division 1 detention occupancy. Consequently, no risk level has been assigned.

B2 – Care and Treatment Occupancy

The Town of Niagara-on-the-Lake contains several Care and Treatment Occupancies. These buildings are large and house some of the most vulnerable residents that the Town has. In addition, most of these occupancies are located within older buildings which present additional risks. Through Ontario Regulation 364/13, all fire departments within Ontario are mandated to conduct yearly inspections and fire drills within these facilities. Furthermore, Ontario Regulation 150/13 requires that all care & treatment occupancies install sprinkler systems by January 1, 2025.

Consequently, Community Risk Reduction Staff continually monitor these buildings, ensuring occupant safety is prioritized. While these buildings may be some of the safest when considering fire protection systems, the occupants themselves remain extremely vulnerable. As most occupants require assistance to leave their spaces in an emergency, Staff must be trained and ready to assist in evacuation when needed. Under Ontario Regulation 150/13, all Staff within the facility assigned to assist occupants with evacuation during an emergency are mandated to take province-directed training in relation to emergency response procedures. **See B3 – Care Occupancy for assigned risk level**

B3 – Care Occupancy

The requirements and risks involved in a Care Occupancy are consistent with those identified within the B2 occupancy type. Ontario Regulation 150/13 requires that all care occupancies install sprinkler systems by January 1, 2019. This regulation also mandated that all Staff within the facility assigned to assist occupants with evacuation during an emergency are to take province-directed training in relation to emergency response procedures. Collectively, between B2 & B3 occupancies, the Town currently has five of these properties that require annual inspections and fire drills.

Probability Level: Likely

Consequence Level: Major

Assigned Risk Level: High

C - Residential Occupancy

Group C, Residential Occupancy, covers a wide variety of residential-style buildings. Although single-family dwellings may first come to mind, this group covers any building where people sleep, including hotels. The hazards that exist from a single-family dwelling are much different than those in a hotel. Consequently, the Ontario Building Code and Ontario Fire Code will ensure all required life safety measures are appropriately placed when these buildings are constructed. According to census

Canada, 2021, Niagara-on-the-Lake contains just over 7,800 private dwellings. Information obtained from the Town's Clerk's Department shows that several hundred of these are used as short-term rentals (cottage rentals, bed and breakfasts, etc.). The Town also contains approximately 21 hotels ranging from smaller 12-room buildings to very large complexes with over 100 rooms. These hotels invite hundreds of occupants daily to sleep in facilities that are typically not familiar to them. Newer hotels can have some of the best life safety features; however, many older buildings, specifically in the Old Town District, are not as well equipped. Furthermore, many of these older buildings contain significant heritage attributes. Due to their age, many buildings have narrow corridors and smaller rooms that provide additional hazards to firefighters during an emergency.

The assigned risk level for this group is to be understood as a starting point. While the Fire Department may respond to more fires in single-family dwellings than hotels, the sheer volume of homes versus hotels must be considered. Only a small percentage of houses statistically experience fires versus hotels. Furthermore, while a house fire will have some adverse negative effects, a fire in a hotel can result in more severe consequences. When reviewing a Group C occupancy, these factors must be considered, including which prevention efforts, education messaging, or suppression tactics will apply to each property.

Another consideration for Residential Occupancies surrounds the rate of growth within the Town. A review of Statistics Canada data shows that in 2021, there were 8,578 private dwellings occupied in Niagara-on-the-Lake, representing an increase of 29.32% since 2011. This data illustrates a significant increase over the ten-year period.

Probability Level: Likely

Consequence Level: Moderate

Assigned Risk Level: Moderate

It is important to note that several residential areas within Niagara-on-the-Lake present a greater risk than the average residential neighbourhood. These areas include private fire lanes with limited or narrow access routes, very remote rural areas, and parts of the municipality that require emergency services to leave the municipal boundaries and re-enter to reach the location. These areas are reflected as high risk within the risk level mapping provided with this document.

D – Business and Personal Services Occupancy

A Business and Personal Service Occupancy is primarily used for the transaction of professional or personal services. Examples include law offices, real estate offices, barbers, banks, medical offices, etc. Although these spaces are often small in size, many units can be combined into one structure, creating an office building. While each use of the space may be different, they typically contain many of the same occupancy types. Typically, each use does not contain many Staff members and does not permit large quantities of occupants. However, they may contain many combustibles in the

form of paper files and office furniture. Depending on the exact use and size, some occupancies may not require second exits or advanced life safety features. Multi-unit buildings range in size from one storey in height, with all units exiting directly to the exterior, to a multi-storey building with central corridors and shared exits.

The Town of Niagara-on-the-Lake has dozens of small single units or small multi-unit Group D occupancies. Many of these occupancies are located on Queen Street, adding additional hazard levels as previously referenced. Available data indicates that this occupancy type does not contribute to a significant amount emergency incidents. Although the Town contains very few multi-storey office buildings, most of these buildings are located in the Glendale area.

Probability Level: Unlikely
Consequence Level: Minor
Assigned Risk Level: Low

E – Mercantile Occupancy

A Mercantile Occupancy consists of a place of business for retailing goods, including an outlet mall, retail stores, country stores, general stores, etc. Niagara-on-the-Lake contains hundreds of these types of occupancies, from retail shops on Queen Street to the Outlet Collection at Niagara. A Mercantile Occupancy can also consist of small food-related services such as a restaurant that permits 30 persons or less, a coffee shop, or specialty food-related businesses such as pastry or chocolate shops.

The hazards that exist within these spaces can vary from very low hazards found in a clothing retailer to extremely high hazards found in a farming chemical reseller. The occupant load in a Mercantile Occupancy can also vary significantly from one use to another. A small store may only permit 10 to 12 persons, while a large retailer may permit 100 or more persons at a time. If mercantile units are placed together like at the Outlet Collection at Niagara, thousands of people could be in one general location at any given time.

The life safety features and construction types found in this occupancy group can also differ significantly. A store on Queen Street may only be protected by a few stand-alone smoke alarms, whereas a larger center may be protected by a full fire alarm and sprinkler system.

Similar to all other occupancies, the location and exact use will determine the precise hazard level. Units on Queen Street present a more significant hazard due to their building construction over units found at the Outlet Collection at Niagara, where the highest level of fire protection exists.

Probability Level: Possible
Consequence Level: Minor
Assigned Risk Level: Moderate

F1 – High Hazard Industrial Occupancy

A High Hazard Industrial Occupancy contains items or processes that are highly hazardous to the occupants and neighbouring properties in an emergency. These occupancies include distilleries and spray-painting operations. While statistically, the Niagara-on-the-lake Fire & Emergency Services do not respond to many emergencies within an F1 occupancy, the potential consequence is exceptionally high. The number of high hazard occupancies continues to grow in Niagara-on-the-Lake, with four distilleries opening in the past five years.

Probability Level: Possible

Consequence Level: Major

Assigned Risk Level: High

F2 – Medium Hazard Industrial Occupancy

A Medium Hazard Industrial Occupancy also contains items or processes hazardous to the occupants and neighbouring properties in an emergency. These occupancies include aircraft hangars and service garages. Although less hazardous than an F1 occupancy, these properties can create a significant emergency incident. Within Niagara-on-the-Lake, there are over 30 wineries and six breweries/cideries, all of which are classified as a medium hazard.

Probability Level: Possible

Consequence Level: Moderate

Assigned Risk Level: Moderate

F3 – Low Hazard Industrial Occupancy

A Low Hazard Industrial Occupancy is an occupancy that contains the least amount of risk compared to the other industrial occupancies. Warehouses or laboratories are examples of this type of occupancy. Typically, these spaces can be located closer to other occupancies than a medium or high hazard occupancy. These uses also may be found together within an industrial park setting.

Probability Level: Unlikely

Consequence Level: Minor

Assigned Risk Level: Low

Additional Building Stock Considerations

Age and Location of Buildings

The age and location of a building must be considered to assist in determining the hazard that exists. As previously stated, an older structure will burn at a much slower rate than newer construction. Buildings located closer to one another also present a greater risk than a standalone building. A fire on a street with buildings closer together has a greater chance of spreading than a fire on a street where the buildings are spread out further apart.

High-Rise Structures

A high-rise structure is identified within the Ontario Building Code as a building exceeding 36 meters in height from grade to the floor level of the top storey. Although there are other ways to calculate a high building as identified by the Ontario Building Code, they do not apply to any structures in Niagara-on-the-Lake. Within Niagara-on-the-Lake, there is currently one structure that is considered a high building. This structure is a hotel in the Glendale District. Firefighting tactics used in high buildings differ significantly from those employed in other structures.

Life Safety Features

The life safety features within a building can drastically affect how a building responds or reacts during an emergency. For example, built-in fire alarms can alert emergency services sooner, and sprinkler systems can assist in containing a fire during the early stages. Many buildings within Niagara-on-the-Lake have these life safety features, and they must be considered when reviewing the risks for any structure.

Land Use

Figure 2 represents the land use types within the Town of Niagara-on-the-Lake. This graphic does not reflect the number of buildings or actual use/occupancy of buildings on any property.

FIGURE 24 - LAND USE

Land Use with the Town of Niagara-on-the-Lake ²¹	
Residential	76%
Farm Use	13%
Vacant Land	7%
Commercial Use	2%
Industrial Use	<1%
Institutional Use	<1%
Government Use	<1%
Special Use	<1%

²¹ [Property Types | MPAC](#)

Vacant Buildings

As will be further identified within the Demographic Profile, nearly 60% of the Town's population is over the age of 50. As such, many of these residents are retired and travel to warmer regions during the winter months. While the exact number of residents travelling south is unknown, the Canadian Snowbird Association²² believes approximately 1 million Canadian residents travel during the winter months²³. Based on this estimate, it can be anticipated that roughly 3.5% of all Canadians leave Canada every winter. When applying this percentage to the Town of Niagara-on-the-Lake, it could be considered that nearly 600 dwellings within the community are vacant for several months during the year. Additionally, the Town of Niagara-on-the-Lake contains over 190 dwellings used to house seasonal migrant workers from overseas. Due to the nature of the work, these workers are only employed on a seasonal basis, thus leaving these dwellings vacant for the remaining portions of the year.

A vacant building can present a hazard, specifically when it is unknown if the property is vacant at the time of an emergency. Firefighters may enter a structure not knowing if the house is occupied or may conduct search and rescue operations when no information regarding the occupant status is received upon arrival. This can put firefighters at risk of injury when a search of the property may not have been required. A vacant building can also become a place that squatters may inhabit. Consequently, squatters may look to heat the space in ways the building may not have been intended to be heated. These methods often are hazardous and can lead to fires requiring the fire department and other emergency services to respond.

Lightweight Building Construction

Lightweight building construction techniques are commonly used in various new construction projects within the town. As the municipality continues to grow and the urban pockets expand with the increased population, more and more buildings are being constructed using this type of construction. Most new residential dwellings utilize lightweight trusses and floor joists as is permitted by the Ontario Building Code. This modern building technique provides for cheaper construction costs as well as the ability for the home to be built with large open spaces. While lightweight construction has many benefits for the builders and owners of the homes, it also presents a serious risk to responding firefighters. During a fire these systems may be susceptible to pre-mature failure and rapid collapse under certain fire conditions, posing a significant risk to responding firefighters.

As of 2022, there is currently no active list identifying which properties contain lightweight construction throughout the community. It can only be assumed that lightweight construction is present in most new commercial construction projects. It

²² [Home | Canadian Snowbird Association \(snowbirds.org\)](https://www.snowbirds.org/)

²³ [Nearly one million Canadian snowbirds anxious to travel south this winter | CTV News](https://www.ctvnews.ca/nearby-one-million-canadian-snowbirds-anxious-to-travel-south-this-winter-1.5611111)

must also be assumed that most homes and subdivisions built after 2007 in the community are likely to have been built using these construction techniques. Firefighters are trained in basic building construction techniques and can identify the presence of lightweight construction materials. Due to the nature of the volunteer composition of the department where our members live within the community, they are typically aware of new construction projects taking place within their districts where it can be assumed that most new buildings have at least some elements of lightweight construction.

Moving forward, staff will work with the Town's Building Department to ensure new lightweight construction buildings are identified. The Department's pre-planning practices have also been updated to identify lightweight construction. All future pre-plan documents are readily available to firefighters on each apparatuses MDT as well as through the *I Am Responding* mobile application where completed pre-plans are stored and accessed.

Critical Infrastructure Profile

Within Niagara-on-the-Lake, infrastructure exists that could significantly negatively impact the Town if damaged or taken offline due to a fire or emergency. Below, the main infrastructure components have been listed, identifying concerns and issues related to the potential outcomes of damaged infrastructure

Niagara-on-the-Lake Hydro Inc. - Electrical Distribution

Niagara-on-the-Lake Hydro is the only electricity distributor within the municipality. If this service is compromised, all of Niagara-on-the-Lake would be without power.

Enbridge Gas Distribution

Enbridge provides natural gas service to all urban areas of Niagara-on-the-Lake and most of the rural areas within the town. If any of the main feeder gas lines within the town were part of a large-scale emergency, this could affect thousands of customers who rely on gas for heat, hot water, and cooking.

Telecommunication Towers - Cell Phone / Radio Frequency

Niagara-on-the-Lake has several telecommunication towers located throughout the municipality. If any of the towers were to fail or be damaged by fire, a drop-in service might occur.

Town Administration & Elected Officials

The Town Administration Building provides all primary municipal services to the citizens of the Town. If the administration building were destroyed or unable to be used, all primary municipal services would be halted or delayed for a considerable amount of time.

Waste Water Treatment Plant

Without a functional wastewater treatment plant or pumping station, neighbourhoods cannot remove waste. Any failure in the system may produce very unsanitary conditions for the Town.

Niagara-on-the-Lake Fire Apparatus & Facilities

Niagara-on-the-Lake Fire & Emergency Services provides the town's fire protection and emergency services. If apparatus or facilities were destroyed or unusable, this would negatively affect the Town by not being able to maintain the current level of service provided. Citizens would be required to wait longer for apparatus from other stations to respond or from neighbouring jurisdictions.

Niagara-on-the-Lake Fire & Emergency services operate two radio antenna sites within the municipality. The primary site is centrally located to assist in reaching all areas of the Town. A secondary backup site is located at the south end of town. If either of these sites were damaged, Niagara-on-the-Lake Fire & Emergency Services would be dependent on one site without backup.

Farm Lands

Farming is a significant industry within Niagara-on-the-Lake. In the event of a large flood in an agricultural area or fire at an agricultural facility, there could be a negative effect on the community. The availability of these crops impacts various other sectors, potentially having cascading impacts on many local businesses.

Banks

There are a limited number of banks in Town, making them more valuable. If a bank or building that contained a bank was involved in a fire, it could create an issue for the local citizens. Residents may be forced to travel out of town to complete any banking needs that could not be completed online.

Queenston-Lewiston Border Crossing

While it is difficult to show that the closure of this border crossing would directly affect Niagara-on-the-Lake, it is likely to impact out-of-country tourists utilizing this crossing. If another border crossing had to be used in Niagara Falls or Fort Erie, it could be anticipated that there would be an effect on the tourism in Niagara-on-the-Lake.

Demographic Profile

Currently, the population of the Town of Niagara-on-the-Lake is approximately 19,088 people.²⁴ When considering the transient population that visits the area every year, this number swells exponentially. According to the Niagara-on-the-Lake Chamber of Commerce, Niagara-on-the-Lake sees over 3 million tourists each year.

Population

The Town of Niagara-on-the-Lake has experienced significant growth over the past fifteen years. By reviewing data collected by Statics Canada, the municipality has grown by 30.87% during this period.

FIGURE 26 - POPULATION BY YEAR

Year	Population
2006	14,585
2011	15,395
2016	17,515
2021	19,088

As referenced in the Building Stock Demographic under a Group C occupancy, there were 8,578 private dwellings occupied in Niagara-on-the-Lake (2021 census), representing an increase of 29.32% since 2011. The community has experienced significant development over the past ten years. This increase can be directly translated to the increase in population as newcomers move to Niagara-on-the-Lake.

A breakdown of what style of private dwelling the citizens live in has been provided below.

FIGURE 27 – DWELLING TYPES

Dwelling Type	Number of Units	% of Private Dwellings
Single Detached	6,225	79.2%
Semi-Detached	445	5.6%
Row House	715	9.0%
Duplex	30	0.3%
Apartments	415	5.2%
Other Single Attached	10	0.1%
Moveable Dwelling	15	0.2%

²⁴ [Census Profile, 2021 Census - Niagara-on-the-Lake, Town \[Census subdivision\], Ontario and Canada \[Country\] \(statcan.gc.ca\)](https://www150.statcan.gc.ca/n1/pub/92-62-x/2021001/article/00001-eng.htm)

Age

The age of the Town's citizens is an important consideration as it significantly affects the type of incidents managed by Niagara-on-the-Lake Fire & Emergency Services. The general population's age also affects the fire safety information that the Community Risk Reduction Division produces and shares. Figure 5 below shows the Town's current demographics broken into 10-year groups. (Statistics Canada, 2021 Census of Population.)

FIGURE 28 – AGE OF TOWN BY PERCENTAGE

Age Group	Population	% of Population
0 – 9 years	1,305	6.8%
10 – 19 years	1,625	8.5%
20 – 29 years	1,610	8.4%
30 – 39 years	1,500	7.8%
40 – 49 years	1,705	8.9%
50 – 59 years	2,615	13.6%
60 – 69 years	3,815	19.9%
70 – 79 years	3,200	16.7%
80 – 89 years	1,355	7.1%
90 – 99 years	335	1.7%
100 years and over	10	0.5%
Total Population	19,088	100%

Figure 28 shows that nearly 60% of the Town's population is over the age of 50. Within that group, more than a third, 33%, of the Town's population is between the ages of 50 and 69.

FIGURE 29 – AGE GROUPS IN TOWN BY PERCENTAGE

Age Group	Years	% of Population
0 to 14 years	2006	13.8%
	2011	13.4%
	2016	11.9%
	2021	11.0%
15 to 64 years	2006	62%
	2011	60.6%
	2016	57.2%
	2021	52.8%
65 years and over	2006	24.1%
	2011	25.9%
	2016	30.9%
	2021	36.1%

Another trend illustrated in Figure 6 is the Town’s aging population. There has been a slow decline in the Town’s population under 64 years old, while an increase in those over 65 years old. Although a portion of this can be attributed to residents staying within the community and aging in their homes, the statistics demonstrate significant growth in this group. When considering the amount of growth in Niagara-on-the-Lake alongside the growing population over 65 years old, it can be concluded that many people moving to Niagara-on-the-Lake are in this over 65 age range. Consequently, there are potential hazards that should be considered as a result of these findings.

Languages Spoken

Within Niagara-on-the-Lake, census information reveals that of the approximately 17,500 citizens in town, 175 do not speak English. This represents approximately 1% of our community whereby fire prevention information that the department currently produces may be ineffective.

Density

As previously noted, Niagara-on-the-Lake encompasses just over 132 square kilometres (51.27 square miles). With a population of approximately 17,500, this translates to the population density across the entire community of roughly 132 people per square kilometre (347 people per square mile). This information is important as it can help determine how staffing and response times relate to the NFPA recommended staffing and response recommendations based on demand zones.

Community Growth

The population of Niagara-on-the-Lake is forecasted to grow to roughly 22,400 people by 2031, according to the 2015 Official Plan Review – Growth Analysis²⁵. This represents an estimated population increase of over 4,900 citizens or approximately 27% from 2016 - 2031. It is important to note that this increase in population growth may not translate directly into a call volume increase of the same percentage for the Fire Department. Over the past five years, the call volume growth has been approximately 12%.

Using both anticipated population growth and call volume growth, it can be estimated that fire department call volume in 2030 may be approximately 756-783 incidents annually.

In 2018, the Niagara Region began to develop the Glendale Niagara District Plan²⁶. This plan aims to study and provide an urban vision for the area of Niagara-on-the-Lake, known as Glendale. With significant growth identified within the plan, the Glendale area could expect upwards of 15,000 people in the coming years. The plan, however, is still in development at this time and has not officially been adopted. While this growth may need to be considered by Niagara-on-the-Lake Fire & Emergency Services at some point, it cannot be considered until such time that regional and local branches of government have adopted the plan.

There are many other significant developments slated for several areas around the Town; however, most have not received formal approvals yet. These include residential, hotel, and commercial structures.

Tourism

As previously referenced, according to the Niagara-on-the-Lake Chamber of Commerce, Niagara-on-the-Lake sees over 3 million tourists each year. During the summer months, an increase of over 100,000 people can be expected at any given time. This increases the Town's population by roughly 570% per day. This added transient population adds significant demand on the Niagara-on-the-Lake Fire & Emergency Services through increased emergency responses. In addition, this large transient population brings with it additional considerations, such as:

- Ensuring this group of people remains safe within the buildings they occupy while in Town;
- Reaching this group of people with public education messages, specifically those who do not speak English as a first language; and

²⁵ <https://notl.civicweb.net/document/6185>

²⁶ [Glendale Niagara District Plan - Niagara Region, Ontario](#)

- More vehicles are present with this group during certain times of the year in certain areas of Town, impacting response times.

Student Population

Niagara-on-the-Lake contains a campus for Niagara College, a popular post-secondary institution located in the southwest corner of the municipality. Over the past several years, student enrolment at Niagara College has been approximately 4,500 students each year. After a review with Niagara College's enrolment services, they have indicated that it can be expected that the college has upwards of 2,000 students on-site during a regular school day. The college also employs hundreds of staff. When added to the student population, it can be assumed that there are 2,400 additional people within the community on a typical school day.

Migrant Worker Population

Every spring, Niagara-on-the-Lake welcomes approximately 1000 migrant workers primarily from Mexico, the Caribbean, Guatemala, Thailand and the Philippines. These workers are hired on temporary contracts by local farmers to assist in farming the thousands of acres of agricultural lands within the community. Most of the farming that the migrant population performs supports the wine and tender fruit industry. Challenges faced with this influx include ensuring their accommodations are fire safe by meeting all Ontario Fire Code requirements, while also ensuring proper fire safety education has been made available to them in their native language.

Hazard Profile

The Hazard Profile referenced within Ontario Regulation 378/18 assesses hazards that present a risk to the community and the general public. These hazards may include natural, human-caused and technology hazards to which emergency services personnel would be expected to respond to.

Hazard Identification & Risk Assessment

In the summer of 2018, Niagara-on-the-Lake Fire & Emergency Services developed a Hazard Identification and Risk Assessment (HIRA). Within this document, all possible hazards that could exist within the Town were identified. All hazards were reviewed and assigned a risk level based on frequency and consequence. For detailed information on how these risk levels were assigned and what factors were included, the 2018 HIRA may be referenced.

This information is confidential and can be made available upon request.

Public Safety Response Profile

Within the Public Safety Response Profile, an assessment of other local emergency response agencies is reviewed. The agencies, incidents to which they would be dispatched to, and any possible concerns are identified.

The Niagara Region, as a whole, is in an excellent position with the number of public safety organizations that exist. The below information identifies the local and regional emergency response agencies that provide services within Niagara-on-the-Lake. Any issues or concerns that need to be considered at a potential incident have also been noted.

Niagara Regional Police Service

Incidents Responding to:	Roles at Incident:
<ul style="list-style-type: none">• Motor Vehicle Collisions (MVCs)• Fires• Incidents of major significance	<ul style="list-style-type: none">• Scene control• Traffic control• Crowd control
Possible Concerns	
<ul style="list-style-type: none">• Limited NRPS resources within Niagara-on-the-Lake can result in the misuse/overuse of fire department resources	

Ontario Provincial Police

Incidents Responding to:	Roles at Incident:
<ul style="list-style-type: none">• MVCs, highway-related• Incidents of major significance	<ul style="list-style-type: none">• Scene control• Traffic control
Possible Concerns	
<ul style="list-style-type: none">• None at this time	

Niagara Emergency Medical Services

Incidents Responding to:	Roles at Incident:
<ul style="list-style-type: none">• Medical Emergencies• MVCs• Fires• Incidents of major significance	<ul style="list-style-type: none">• Primary service provider for medical care during an emergency
Possible Concerns	
<ul style="list-style-type: none">• Limited NEMS resources within Niagara-on-the-Lake can result in the overuse of fire department resources	

St.Catharines Fire and Emergency Services

Incidents Responding to:	Roles at Incident:
<ul style="list-style-type: none">• MVCs, highway-related• Incidents of major significance• Ice and Water Rescue related incidents	<ul style="list-style-type: none">• Provides Automatic Aid
Possible Concerns	
<ul style="list-style-type: none">• None at this time	

Niagara Falls Fire Department

Incidents Responding to:	Roles at Incident:
<ul style="list-style-type: none">• MVCs, highway-related• Incidents of major significance• Technical Rescue related incidents	<ul style="list-style-type: none">• Provides Automatic Aid
Possible Concerns	
<ul style="list-style-type: none">• None at this time	

Canadian Coast Guard

Incidents Responding to:	Roles at Incident:
<ul style="list-style-type: none">• Ice and Water-related incidents• Any incident in Lake Ontario or within the Niagara River	<ul style="list-style-type: none">• Provides Assistance as requested
Possible Concerns	
<ul style="list-style-type: none">• None at this time	

Niagara Parks Police

*Only attends incidents located on Niagara Parks Commission Land

Incidents Responding to:	Roles at Incident:
<ul style="list-style-type: none">• Ice and Water-related incidents• Any incident in Lake Ontario or within the Niagara River	<ul style="list-style-type: none">• Provides Assistance as requested
Possible Concerns	
<ul style="list-style-type: none">• None at this time	

Other agencies that could be considered, however, provide no concerns, would only assist as requested, and would be only called for particular types of incidents would include:

- Canadian Border Security Agency (CBSA)
- United States Coast Guard
- Transport Canada
- Niagara Peninsula Conservation Authority (NPCA)
- Royal Canadian Mounted Police (RCMP)
- Ontario Fire Marshal (OFM)

Community Services Profile

The Community Service Profile analyzes the existing services currently provided within the community. The following service providers include businesses, clubs and volunteer agencies. All of these organizations have the ability to not only support their community on a day-to-day basis but can also assist or support during and after an emergency.

Newark Neighbours

- Providing food and clothing after an emergency

NOTL Hydro

- Shutting down hydro during an emergency
- Restoring hydro after an emergency

Enbridge Gas

- Turning off gas during an emergency
- Restoring gas after an emergency

Meals on Wheels

- Providing food after an emergency

NOTL Building Department

- Providing building plans or services
- Providing expertise knowledge

NOTL Roads Department

- Providing heavy machinery and equipment during an emergency

Canadian Red Cross

- Providing temporary shelter, food and clothing after an emergency

Lions Club

- Providing services in-kind after an emergency (funding/labour/facilities)

NOTL Community Centre

- Providing refuge during an emergency
- Providing public education venue

The agencies listed are those that may serve Niagara-on-the-Lake specifically. There are still several others within the Niagara Region that may provide support and assistance as required. Additional services can include family reunification, additional emergency lodging, as well as reception and information.

Economic Profile

The Economic Profile review intends to identify any key businesses, operations, or sectors within the municipality that, if lost, could create significant economic effects. By identifying these operations, fire prevention activities can be reviewed to assist in preventing a large-scale emergency from happening while suppression tactics can be identified.

Within Niagara-on-the-Lake, the most prominent businesses, operations or sectors have been identified below.

Penner Home Hardware

Penner Home Hardware is a major employer in town as well as a primary retail outlet. Furthermore, Penner Home Hardware is a major distributor of building construction materials in the Niagara Region. Losing this retail outlet would require residents to leave town for many simple everyday purchases.

Assigned Risk Level: Unlikely

Probability Level: Major

Consequence Level: Moderate

Outlet Collection at Niagara

The Outlet Collection at Niagara is a busy retail attraction with approximately 6.5 million visitors each year. The facility contains a modern fire protection system and a layout designed to prevent fire spread throughout the complex. If more than one unit was involved in an incident, it could negatively affect the tourism industry by not drawing as many visitors. This mall also employs hundreds of people who could, in turn, lose their jobs due to a significant incident at this facility.

Assigned Risk Level: Possible

Probability Level: Major

Consequence Level: Moderate

Shaw Festival

The Shaw Festival is a significant theatre and performing arts operation. This organization employs hundreds of people to assist in all aspects involved in the theatre productions. The Shaw Festival also owns multiple buildings located throughout the town. If a fire were to occur in any of the Shaw Festival facilities, this could have lasting effects on all parts of the Shaw Festival operations.

Assigned Risk Level: Possible

Probability Level: Major

Consequence Level: Moderate

Niagara College

Niagara College employs hundreds of people and educates thousands. While many may not reside directly in Niagara-on-the-Lake, the time spent in Niagara-on-the-Lake benefits our economy. Any significant interruption in the Niagara College operations would have a considerable impact on the Glendale area.

Assigned Risk Level: Possible

Probability Level: Major

Consequence Level: Moderate

Any Commercial Building on Queen Street or any Hotel in Town

There is no one property on Queen Street that, if lost, would have a damaging effect on tourism; however, the risk level spikes when more than one building could become involved during an incident. The layout and design of the downtown core present a significant fire risk. The risk of one building being involved in a fire and spreading to others is very high. If a large section of Queen Street was damaged, this could adversely affect the Town's tourism.

Assigned Risk Level: Likely

Probability Level: Major

Consequence Level: High

Municipal Operations

The municipality provides many essential services to the residents, business owners, and visitors of Niagara-on-the-Lake. Services include water distribution, irrigation, and maintenance of all municipal roads, including snow plowing during the winter months. Other essential services provided by municipal operations include maintaining outdoor spaces, enforcing municipal bylaws and setting the overall direction through municipal council directions. If these services were not available, the Town could see significant economic impacts that would affect many residents and businesses in the community. Luckily many safeguards have been put into place to assist in elevating any potential issues that could arrive within any municipal operations

Assigned Risk Level: Possible

Probability Level: Major

Consequence Level: Moderate

Tender Fruit Operations

A large number of residents rely on the ability to grow and sell tender fruit. This includes fruit grown on trees such as apples, peaches, pears, etc. and also fruit grown on vines, mainly grapes for wine production. If this industry suffered a major incident such as a cold snap or another weather-related issue that destroyed the fruit crops, this could have devastating effects on the lively hood of a significant portion of the community. These events, in turn, could create an economic issue for the municipality across all sectors. Local retailers may suffer, local grocery stores may suffer, and nearly 40 local wineries who help drive the tourism industry could all suffer.

Assigned Risk Level: Possible

Probability Level: Major

Consequence Level: Moderate

Past Loss & Event History

Within the Past Loss & Event History Profile, fire calls within the last five years are reviewed. Through this information, past trends can begin to be identified and evaluated. Fire prevention efforts can be modified to suit the trends occurring within the community. Public education messaging can also be geared directly toward these trends. Identifying these fires is also important from a suppression standpoint to ensure the Fire & Emergency Services is well-positioned to handle the types of fires occurring.

FIGURE 30 – PAST LOSS & EVENT HISTORY

2016	Occupancy	# of Fires	Dollar Loss	Cause
	Residential	3	\$1,465.00	Electrical & Fuel Storage
	Other*	8	\$75,000	Unknown
2017	Occupancy	# of Fires	Dollar Loss	Cause
	Residential	4	\$505,000	Unknown
	Other*	4	\$5,000	Smoking & Unknown
2018	Occupancy	# of Fires	Dollar Loss	Cause
	Residential	3	\$1,300,000	Cooking & Unknown
	Mercantile	2	\$150,000	Unknown
	Other*	9	\$1,853,000	Unknown
2019	Occupancy	# of Fires	Dollar Loss	Cause
	Care	1	\$500	Cooking & Unknown
	Residential	4	\$20,000	Unknown
	Mercantile	1	\$75,000	Unknown
	Industrial	2	\$465,000	Unknown
	Other*	11	\$90,000	Unknown
2020	Occupancy	# of Fires	Dollar Loss	Cause
	Residential	8	\$47,100	Unknown
	Industrial	4	\$15,000	Unknown
	Other*	4	\$62,000	Unknown
2021	Occupancy	# of Fires	Dollar Loss	Cause
	Residential	5	\$1,901,000	Unknown, Electrical, Candle
	Industrial	2	\$2,500,000.00	Electrical
	Other*	13	\$136,700	Unknown

* OTHER INCLUDES VEHICLE FIRES, GRASS FIRES, TRASH FIRES, ETC.

The following information was retrieved through the Office of the Ontario Fire Marshal as data previously collected by the department from 2016-2018.

Reported Fire by Occupancy

Within Niagara-on-the-Lake, most fires occurred within a residential occupancy (Group C). The remaining properties which suffered fire loss in order of occurrence are:

- Group E - Mercantile occupancies
- Group F - Industrial occupancies
- Other occupancies not classified within the Ontario Building Code (i.e. farm buildings)
- Group A – Assembly occupancies
- Group D - Business and Personal Services Occupancies
- Group B – Institutional Care or Detention occupancies

Reported Fire Cause

Assessing the possible cause of the fires reported is an important factor in identifying any potential trends or considerations for introducing additional public education of fire prevention initiatives as part of the community fire protection plan.

The leading causes of fire within Niagara-on-the-lake were:

- Misuse of ignition source/material first ignited
- Mechanical/Electrical in nature
- Maintenance deficiencies
- Other unintentional
- Undetermined

Reported Fire Ignition Source Class

The leading reported causes for ignition sources within Niagara-on-the-Lake were:

- Undetermined
- Cooking equipment
- Heating equipment, chimney, etc.
- Appliances
- Lighting equipment
- Electrical equipment
- Other electrical/mechanical
- Exposure



EMERGENCY RESPONSE

Niagara
-on-the-**Lake**
EST. 1781

2023

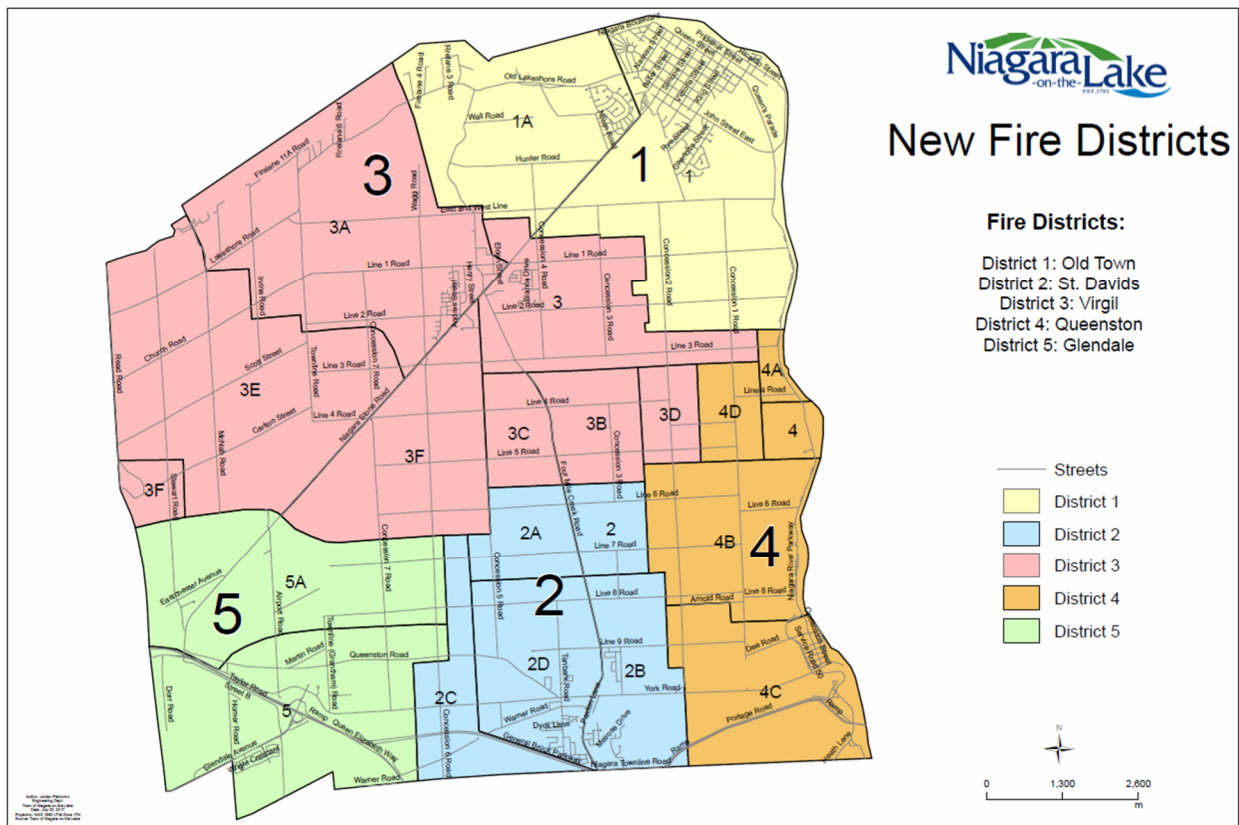
Critical Tasking

Every fire department needs to determine that the appropriate apparatus and staffing level is deployed for every incident that the department responds to on the first response, based on what information is relayed to dispatch during the initial 911 call.

Within Niagara-on-the-Lake, the Niagara-on-the-Lake Fire & Emergency Services have divided the entire community into response zones. Within each response zone, every type of emergency we respond to has been identified. The dispatched apparatus for any incident is then based on the type of emergency and where the emergency occurs. A reported structure fire on Queen Street in Historic Old Town with municipal fire hydrants will have a slightly different response than a reported structure fire in a rural area with no municipal hydrants, mainly by the addition of the required Tankers for water shuttling.

There are currently 54 different response zones in Niagara-on-the-Lake, along with five different response zones for highway responses, depending on the location of a highway incident. Of the 54 different response zones, some are considered 'special grids' which only apply to specific high-risk occupancies. Within the 'special grid' response zones are 47 high-risk occupancies.

FIGURE 31: NIAGARA-ON-THE-LAKE RESPONSE ZONES



Response Deployment / Effective Response Force

The district map shown in Figure 31 outlines the response areas for each station. Most minor responses can be handled by those firefighters and apparatus within the district. Significant calls such as structure fires involve dispatching additional apparatus from neighbouring districts. A breakdown of how many apparatuses are dispatched to each call type has been provided below. However, being a volunteer fire department, it is difficult to predict precisely how many firefighters may be responding to any given incident. It cannot be expected that every apparatus will respond with a full crew for every incident. Time of day, day of the week, and the season can all affect volunteer firefighters' availability. These factors are considered when addressing what apparatus should be responding to a specific incident type within a specific response area. The expected number of apparatus on the first alarm and anticipated lowest staffing levels for an incident has been identified within response charts provided within **Appendices F through K**.

Currently, within Niagara-on-the-Lake, there is no adopted standard or target of how many firefighters the department aims to achieve to arrive on site. This information is what is anticipated in lieu of an adopted standard at this time.

In the summer of 2022, Niagara-on-the-Lake adopted its Community Risk Assessment document which assisted in organizing the municipality into low, moderate or high risks. As previously referenced, being volunteers, it is expected that whether an incident is a medical response, a motor vehicle collision, or a structure fire, all volunteers proceed to their assigned station and respond in an apparatus with the same level of importance.

Attendance Management for Response

After an incident has occurred, it is the responsibility of the District Chief and station officers to enter the incident details into the department's records management system. This includes recording which firefighters attended the incident. As described within the Attendance Policy, all firefighters must maintain a minimum attendance of 25% of incidents. This minimum attendance policy recognizes that all volunteer firefighters have full-time careers, families, and other commitments outside of the Department. However, to ensure the community receives the proper level of service established, volunteer firefighters must also ensure they are able to commit the required time to the department.

Response History

See Appendices L through EE

Currently, Niagara-on-the-Lake Fire & Emergency Services does not have an adopted standard or set target time for total response times. While NFPA 1720 is often used and referenced by administrative staff as a comparable standard, it has never been officially adopted. When creating benchmarks, looking for similar communities reporting response times is to be used. Currently, the Niagara-on-the-Lake Fire & Emergency Services is the only strictly volunteer organization that will be reporting its response times in Canada. Ottawa Fire Services, an Accredited Agency within Ontario, Canada, supports a composite fire department, meaning it employs both full-time and volunteer firefighters. Another Accredited Agency located within British Columbia, Canada, Township of Langley Fire Department, also supports a composite model. Although these are the closest Canadian comparable organizations, it is not an accurate comparison as these organizations dispatch career-staffed apparatus as part of all fire responses. As these two departments are the only two Accredited Agencies, at the time of this report being written, with volunteer firefighters, we have looked to their reported baseline and benchmark response times to assist in creating those for Niagara-on-the-Lake.

Over the last three years, in order to improve overall response times, the Fire Department looked to refine the turn-out process leading up to apparatus response. All firefighters were provided access to the *I Am Responding*²⁷ application. Within stations, large screens have been placed to assist firefighters in understanding who is responding to the incident and how far away they may be. This information allows for an informed decision regarding the staffing of the responding apparatus. Mobile data terminals have also been added to all fire apparatus to display the I Am Responding information, allowing the officer to make a timely decision on the response of the apparatus. These mobile data terminals also assist by providing directions and additional information regarding the call that the dispatcher may not have shared.

Analyzing response times can be a complicated process as it is entirely dependent on accurate data. It should be understood that small data sets will yield different results than larger data sets. The results may differ drastically on a small data set from year to year when there were no changes to the response model. This varying result will typically be found with fire apparatuses that do not regularly respond, such as a tanker, or for a call type that is rarely encountered, such as a hazmat call. Moving forward, as data is collected more accurately, the data sets will grow, helping to yield more valuable information.

Total responses have been noted from the past 4 years, 2018 to 2021. When reviewing response times and turn-out times, only these four years of data were available for review. Consequently, all of this data collected will serve as the department baselines.

²⁷ [IamResponding | Get in Touch with Us!](#)

Response Data

Using the Centre for Public Safety Excellence Core Competency Categories, the below categories have been used to identify the services that the Niagara-on-the-Lake Fire & Emergency Services responds to:

- 5E – Fire Suppression
- 5F – Emergency Medical Response
- 5G – Technical Rescue
- 5H – Hazardous Materials
- 5I – Aviation Rescue and Firefighting Services
- 5J – Marine and Shipboard Rescue and Firefighting Services
- 5K – Wildland Fire Services
- 5L – Other Programs as Operated by the Agency

Within Niagara-on-the-Lake, the Niagara-on-the-Lake Fire & Emergency Services provides services for categories 5E, 5F, 5G, and 5H. While 5G and 5H are services that are provided, the frequency of these incidents range from 1 to 5 incidents each year on average. Due to the very low frequency, there is inadequate data to evaluate these response times appropriately. Although Volunteer Firefighters are trained to Awareness and Operations levels, during any Technical Rescue or Hazardous Materials response, neighbouring departments or response teams are also dispatched to perform all lead Technician roles during an incident. While there is an airport located within Niagara-on-the-Lake, Niagara-on-the-Lake Fire & Emergency Services does not train specifically for aviation incidents. The frequency of these events is typically 0 to 1 each year. Similar to categories 5G and 5H, there is inadequate data to report these types of incidents as intended. Niagara-on-the-Lake Fire & Emergency Services does not perform category 5J or 5K services.

Through the 5L category, *Other Programs as Operated by the Agency*, Niagara-on-the-Lake is reporting on a variety of response types, including Fire Alarm Responses, Assistance Responses, Gas and Carbon Monoxide Responses, and Motor Vehicle Collision Responses. When considering the services provided, the nature of the volunteer model, and the number of incidents responded to annually, Niagara-on-the-Lake Fire & Emergency Services believes breaking the data out into this detail provides a more accurate representation of the activities undertaken by the department. This level also assists the department in refining its reporting structure and protocols.

Data within the appendices regarding response time has been broken into the following categories:

- 90th Percentile Times for Baseline Performances
 - Fire Response
 - Medical Response
 - Fire Alarm Response
 - Assistance Response
 - Gas & Carbon Monoxide Response

- Motor Vehicle Collision Response
- Responses per month, per time of day
- Responses per month, per day of the week

Outliers

When reviewing all data sets for Niagara-on-the-Lake Fire & Emergency Services response data, certain outliers have been removed. These outliers include:

- Additional apparatus that were not requested but that respond to an incident for long-duration events. These additional apparatus result in turnout times typically less than 10 seconds.
- Chief cars arriving on the scene before an apparatus as chief cars do not perform all activities identified with the benchmark statements.
- Station District Chiefs often report attending an incident while being the officer on an apparatus. This adds them as independent apparatus to an incident response when they are still part of the crew within a requested apparatus.
- Due to the number of calls experienced within Niagara-on-the-Lake, some call types have very minimal data to report on (less than five for most rescues). These incident types have either been combined in “general assistance” or have been excluded altogether.

Response Staffing

Within Niagara-on-the-Lake, the tracking of firefighter per apparatus had not been completed accurately through the department’s previous records management system. A newer emergency management system was acquired in 2021, which permitted the department to begin to track this data more accurately. Through the new record management system, a renewed focus to ensure this information is reported accurately and adequately is being implemented. All data within the response charts will be more accurately reflected beginning in 2022, after a year’s worth of data will have been able to be tracked in the new records management system.

Performance Objectives

Baselines & Benchmark

Benchmarking incidents requires good quality data. Total Response Times involves consideration of the community's unique needs and the makeup of the department. Niagara-on-the-Lake contains unique challenges with the volunteer model as the exact deployment cannot be guaranteed for every call. Factors that need to be reviewed and considered include the time of day, the day of the week, the month of the year, and where volunteer firefighters live in relation to the stations. Within Niagara-on-the-Lake, the data was not available to divide benchmarking into urban and rural areas. Moving forward, it is the hope to be able to further break down benchmarking into urban and rural responses. Furthermore, response data was not properly collected to ensure those departments with whom we have automatic aid, mutual aid or MOUs were responding within a reasonable time frame. This data will also look to be collected moving forward.

Fire Response

Benchmark for 1st responding unit

For 90 percent of all fires, the total response time for the arrival of the first due unit staffed with 4 volunteer firefighters is proposed to be:

13 minutes and 18 seconds.

The first due apparatus shall be capable of: providing 3,800 litres of water and 4,800 litres per minute pumping capacity; establishing incident command; requesting additional resources; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; containing the fire; and performing a civilian rescue.

Baseline for 1st responding unit ([Appendix S](#))

For 90 percent of all fires, the total response time for the arrival of the first due unit staffed with 4 volunteer firefighters is:

13 minutes and 28 seconds.

The first due apparatus shall be capable of: providing 3,800 litres of water and 4,800 litres per minute pumping capacity; establishing incident command; requesting additional resources; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; containing the fire; and performing a civilian rescue.

Benchmark for the arrival of Emergency Response Force (ERF)

For 90 percent of all fires, the total response time for the arrival of the ERF, staffed with 20 firefighters and officers, is proposed to be:

21 minutes and 08 seconds.

The ERF is capable of: establishing incident command; advancing an attack line and backup line flowing a minimum of 530 litres per minute each; establishing an uninterrupted water supply; initiating searches; providing a rapid intervention team; appointing an accountability officer and incident safety officer; operating an aerial and deploying portable ground ladders, and providing a command aid/advisor. These tasks will be completed in accordance with the organization's Standard Operating Guidelines.

Baseline for the arrival of ERF ([Appendix S](#))

For 90 percent of all fires, the total response time for the arrival of the ERF, staffed with 20 firefighters and officers, is:

21 minutes and 18 seconds.

The ERF is capable of: establishing incident command; advancing an attack line and backup line flowing a minimum of 530 litres per minute each; establishing an uninterrupted water supply; initiating searches; providing a rapid intervention team; appointing an accountability officer and incident safety officer; operating an aerial and deploying portable ground ladders, and providing a command aid/advisor. These tasks will be completed in accordance with the organization's Standard Operating Guidelines.

Fire Alarm Response

Benchmark for 1st responding unit

For 90 percent of all fire alarms, the total response time for the arrival of the first due unit staffed with 4 volunteer firefighters is proposed to be:

12 minutes and 32 seconds

The first due apparatus shall be capable of: providing 3,800 litres of water and 4,800 litres per minute pumping capacity; establishing incident command; requesting additional resources; investigating the cause of alarm; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; containing the fire; and performing a civilian rescue.

Baseline for 1st responding unit ([Appendix T](#))

For 90 percent of all fire alarms, the total response time for the arrival of the first due unit staffed with 4 volunteer firefighters is:

12 minutes and 42 seconds.

The first due apparatus shall be capable of: providing 3,800 litres of water and 4,800 litres per minute pumping capacity; establishing incident command; requesting additional resources; investigating the cause of alarm; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; containing the fire; and performing a civilian rescue.

Benchmark for the arrival of ERF

For 90 percent of all fire alarms, the total response time for the arrival of the ERF, staffed with 3 firefighters and officers, is proposed to be:

16 minutes and 16 seconds.

The ERF is capable of: establishing incident command; investigating the cause of alarm; advancing an attack line and backup line flowing a minimum of 530 litres per minute each; establishing an uninterrupted water supply; and initiating searches. These tasks will be completed in accordance with the organization's Standard Operating Guidelines.

Baseline for the arrival of ERF ([Appendix T](#))

For 90 percent of all fire alarms, the total response time for the arrival of the ERF, staffed with 7 firefighters and officers, is:

16 minutes and 26 seconds.

The ERF is capable of: establishing incident command; investigating the cause of alarm; advancing an attack line and backup line flowing a minimum of 530 litres per minute each; establishing an uninterrupted water supply; and initiating searches. These tasks will be completed in accordance with the organization's Standard Operating Guidelines.

Gas and Carbon Monoxide Response

Benchmark for 1st responding unit

For 90 percent of all gas and carbon monoxide incidents, the total response time for the arrival of the first due unit staffed with 4 volunteer firefighters is proposed to be

14 minutes and 32 seconds.

The first due apparatus shall be capable of: providing 3,800 litres of water and 4,800 litres per minute pumping capacity; establishing incident command; requesting additional resources; investigating the cause of alarm or source of odour; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; performing air monitoring; and performing a civilian rescue.

Baseline for 1st responding unit ([Appendix U](#))

For 90 percent of all gas and carbon monoxide incidents, the total response time for the arrival of the first due unit staffed with 4 volunteer firefighters is:

14 minutes and 42 seconds.

The first due apparatus shall be capable of: providing 3,800 litres of water and 4,800 litres per minute pumping capacity; establishing incident command; requesting additional resources; investigating the cause of alarm or source of odour; advancing an

attack line flowing a minimum of 530 litres per minute; establishing a water supply; performing air monitoring; and performing a civilian rescue.

Benchmark for the arrival of ERF

For 90 percent of all gas and carbon monoxide incidents, the total response time for the arrival of the ERF, staffed with 4 firefighters and officers, is proposed to be:

19 minutes and 40 seconds.

The ERF is capable of: establishing incident command; requesting additional resources; investigating the cause of alarm or source of odour; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; performing air monitoring; performing a civilian rescue; and providing patient care. These tasks will be completed in accordance with the organization's Standard Operating Guidelines.

Baseline for the arrival of ERF ([Appendix U](#))

For 90 percent of all gas and carbon monoxide incidents, the total response time for the arrival of the ERF, staffed with 7 firefighters and officers, is:

19 minutes and 50 seconds.

The ERF is capable of: establishing incident command; requesting additional resources; investigating the cause of alarm or source of odour; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; performing air monitoring; performing a civilian rescue; and providing patient care. These tasks will be completed in accordance with the organization's Standard Operating Guidelines.

Motor Vehicle Collision Response

Benchmark for 1st responding unit

For 90 percent of all motor vehicle collisions, the total response time for the arrival of the first due unit staffed with 4 volunteer firefighters is proposed to be:

12 minutes and 26 seconds.

The first due apparatus shall be capable of: establishing incident command; requesting additional resources; and providing patient care.

Baseline for 1st responding unit ([Appendix V](#))

For 90 percent of all motor vehicle collisions, the total response time for the arrival of the first due unit staffed with 4 volunteer firefighters is:

12 minutes and 36 seconds.

The first due apparatus shall be capable of: establishing incident command; requesting additional resources; and providing patient care.

Benchmark for the arrival of ERF

For 90 percent of all motor vehicle collisions, the total response time for the arrival of the ERF, staffed with 4 firefighters and officers, is proposed to be:

16 minutes and 25 seconds.

The ERF is capable of: establishing incident command; requesting additional resources; performing vehicle stabilization and extrication; eliminating potential hazards; and providing patient care. These tasks will be completed in accordance with the organization's Standard Operating Guidelines.

Baseline for the arrival of ERF ([Appendix V](#))

For 90 percent of all motor vehicle collisions, the total response time for the arrival of the ERF, staffed with 8 firefighters and officers, is:

16 minutes and 35 seconds.

The ERF is capable of: establishing incident command; requesting additional resources; performing vehicle stabilization and extrication; eliminating potential hazards; and providing patient care. These tasks will be completed in accordance with the organization's Standard Operating Guidelines.

Medical Response

Benchmark for 1st responding unit

For 90 percent of all medical responses, the total response time for the arrival of the first due unit staffed with 3 volunteer firefighters is proposed to be:

12 minutes and 29 seconds.

The first due apparatus shall be capable of: establishing incident command; requesting additional resources; and providing patient care.

Baseline for 1st responding unit ([Appendix W](#))

For 90 percent of all medical responses, the total response time for the arrival of the first due unit staffed with 3 volunteer firefighters is:

12 minutes and 39 seconds.

The first due apparatus shall be capable of: establishing incident command; requesting additional resources; and providing patient care.

Benchmark for the arrival of ERF

Within the Niagara-on-the-lake, only 1 apparatus with a minimum of 3 firefighters are dispatched to a medical call. Being a volunteer fire department, additional fire fighters and apparatus may attend the scene if requested in additional apparatus; however, they are not required to attend upon initial dispatch.

Baseline for the arrival of ERF ([Appendix W](#))

Within the Niagara-on-the-lake, only 4 firefighters and 1 apparatus are dispatched is a medical call. Being a volunteer fire department, additional fire fighters and apparatus may attend the scene if requested in additional apparatus; however, they are not required to attend upon initial dispatch.

Assistance Response

Benchmark for 1st responding unit

For 90 percent of all emergency assistance incidents, the total response time for the arrival of the first due unit staffed with 4 volunteer firefighters is proposed to be:

13 minutes and 53 seconds.

The first due apparatus shall be capable of: providing 3,800 litres of water and 4,800 litres per minute pumping capacity; establishing incident command; requesting additional resources; investigating the nature of the required assistance; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; and performing a civilian rescue.

Baseline for 1st responding unit ([Appendix X](#))

For 90 percent of all emergency assistance incidents, the total response time for the arrival of the first due unit staffed with 4 volunteer firefighters is

14 minutes and 03 seconds.

The first due apparatus shall be capable of: providing 3,800 litres of water and 4,800 litres per minute pumping capacity; establishing incident command; requesting additional resources; investigating the nature of the required assistance; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; and performing a civilian rescue.

Benchmark for the arrival of ERF

For 90 percent of all emergency assistance incidents, the total response time for the arrival of the ERF, staffed with 4 firefighters and officers, is proposed to be:

18 minutes and 20 seconds

The ERF is capable of: establishing incident command; requesting additional resources; investigating the nature of the required assistance; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; and performing a civilian rescue. These tasks will be completed in accordance with the organization's Standard Operating Guidelines.

Baseline for the arrival of ERF ([Appendix X](#))

For 90 percent of all emergency assistance incidents, the total response time for the arrival of the ERF, staffed with 7 firefighters and officers is:

18 minutes and 30 seconds.

The ERF is capable of: establishing incident command; requesting additional resources; investigating the nature of the required assistance; advancing an attack line flowing a minimum of 530 litres per minute; establishing a water supply; and performing a civilian rescue. These tasks will be completed in accordance with the organization's Standard Operating Guidelines.

Appendices

- [Appendix A](#) – Routine Inspection Schedule
- [Appendix B](#) – Fire Apparatus Pictures
- [Appendix C](#) – Mandatory Training Topics
- [Appendix D](#) – Apparatus Replacement Schedule
- [Appendix E](#) – Response Districts and Approximate Number of Buildings per District
- [Appendix F](#) – Response Deployment - Fires
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- [Appendix M](#) – Fires, All Incidents
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- [Appendix S](#) – Fire Responses, Baseline Performances
- [Appendix T](#) – Fire Alarm Responses, Baseline Performances
- [Appendix U](#) – Gas & Carbon Monoxide Responses, Baseline Performances
- [Appendix V](#) – Motor Vehicle Collision Responses, Baseline Performances
- [Appendix W](#) – Medical Responses, Baseline Performances
- [Appendix X](#) – Assistance Responses, Baseline Performances
- [Appendix Y](#) – Responses per Month, per Time of Day
- [Appendix Z](#) – Responses per Month, per Day of the Week

Appendix A

Routine Inspection Schedule

Niagara-on-the-Lake Fire and Emergency Services										
The following inspection frequency chart is based upon the current staffing model (CFPO & FPO & Part Time Fire Inspector)										
Pro-Active Inspection Frequency Chart										
Year		2024	2025	2026	2027	2028	2029	2030	2031	2032
Risk Level	Occupancy Type									
High	Vulnerable Occupancy	10	9	9	9	9	9	9	9	9
High	Queen Street	30	30	30	30	30	30	30	30	30
High	High Hazard	14	14	14	14	14	14	14	14	14
Moderate	Schools	5	5	5	5	5	5	5	5	5
Moderate	Hotels	5	5	5	5	5	5	5	5	5
Moderate	Multi Unit Residential	7	7	7	7	7	7	7	7	7
Moderate	Outlet Mall Common Space	1	1	1	1	1	1	1	1	1
Total Pro-Active Inspections		72	71	71	71	71	71	71	71	71
Short Term Rentals Average 2021 -2023 *subject to STR's maintaining Liscence										
Moderate	Short Term Rental *	142	142	142	142	142	142	142	142	142
Moderate	Short Term Rental Bi-Annual Inspection *	142	142	142	142	142	142	142	142	142
Total Inspections		284	284	284	284	284	284	284	284	284
Alarm Assistance Program										
Estimation (currently at 46 as of Nov 2023)										
	AAP	50	50	50	50	50	50	50	50	50
Total Inspections		50	50	50	50	50	50	50	50	50
Compliant Inspections										
(based on average from 2019 - 2023)										
	Compliant	14	14	14	14	14	14	14	14	14
Total Inspections		14	14	14	14	14	14	14	14	14
Occupancy Inspection with the Building Department										
(based on average from 2018 - 2023)										
	Occupancy	12	12	12	12	12	12	12	12	12
Total Inspections		12	12	12	12	12	12	12	12	12
Total Pro Active Inspections		72	71	71	71	71	71	71	71	71
Total Inspections		360	360	360	360	360	360	360	360	360
Total Inspections		432	431	431	431	431	431	431	431	431

Appendix B

Fire Apparatus Pictures



Pump 1



Pump 2



Pump 2A



Pump 3



Rescue 4



Rescue 5

Town of Niagara-on-the-Lake Fire and Emergency Services
Community Risk Assessment: Standards of Cover



Squad 4



Rescue 3



Ladder 1



Ladder 5



Tank 1



Tank 2



Tank 3



Tank 5

Town of Niagara-on-the-Lake Fire and Emergency Services
Community Risk Assessment: Standards of Cover



Squad 1



Squad 3



Car 1



Car 2



Car 3



Car 4



Car 5

Appendix C

Curriculum Based Training Topics:

NOCP - National Occupational Competency Profile

NFPA - National Fire Protection Association.

NOCP - CPR & Defib	NOCP – Medical Emergencies
NOCP – Patient Care / SFA Testing	NOCP – Traumatic Injuries
NFPA 1001 - Self-Contained Breathing Apparatus	NFPA 1001 – Extrication Principles
NFPA 1001 - Preplanning Principals	NFPA 1001 – Offensive Fire Control
NFPA 1001 - Loss Control & Fire Protection Systems	NFPA 1001 – Ground Ladders
NFPA 1001 - Personal Protective Equipment and Response Safety	NFPA 1001 – Equipment Maintenance
NFPA 1001 – Structural Fire Control	NFPA 1001 – Fire Hose
NFPA 1001 – Forcible Entry	NFPA 1001 – Public Education Principles
NFPA 1001 – Incident Management Principals & Documentation	NFPA 1001 – Fire Ground Command
NFPA 1001 – Hazard Control & Air Monitoring	NFPA 1001 – Ground Cover Fire Control
NFPA 1001 – Defensive Fire Control	NFPA 1001 – Technical Rescue Principals
NFPA 1001 – Water Supply	NFPA 1001 – Portable Extinguishers
NFPA 1001 – Operational Safety	NFPA 1001 – Loss Control and Fire Causes
NFPA 1001 – Ropes and Knots	NFPA 1001 – Firefighting Principals & Health
NFPA 1001 – Vehicle Fire Control	NFPA 1001 – Flammable Liquid & Gas Fire Control
NFPA 1001 – Structural Search & Rescue	NFPA 1001 – Tactical Ventilation & Fire Behaviour
NFPA 1002 – Relay Pumping Operations	NFPA 1002 – Apparatus Operation in Restricted Space
NFPA 1002 – Water Shuttle Operations	NFPA 1002 – Aerial Device operations
NFPA 1002 – Sprinkler & Standpipe Water Supply	NFPA 1002 – Apparatus Readiness & Documentation
NFPA 1002 – Aerial Apparatus Operational Check	NFPA 1002 – Pump Apparatus Operational Check
NFPA 1002 – Apparatus Water Supply	NFPA 1002 – Hand and Master Fire Streams
NFPA 1002 – Apparatus Response Safety	NFPA 1002 – Apparatus Fixed System Operation
NFPA 1002 – Apparatus Operation & Driving	NFPA 1002 – Foam Fire Streams
NFPA 1002 – Aerial Apparatus Positioning & Stabilization	NFPA 1002 – Elevated master Stream
NFPA 1002 – Aerial Operator Communications	

Town of Niagara-on-the-Lake Fire and Emergency Services
Community Risk Assessment: Standards of Cover

NFPA 1006 – Vehicle Extrication	NFPA 1006 – Water Rescue Core Competencies
NFPA 1006 – Technical Rescue Core Competencies	
NFPA 1072 – Hazmat – PPE, Product Control & Decon	NFPA 1072 – Hazmat – Analyzing the Incident
NFPA 1072 – Hazmat, Responsive Objectives	
NFPA 1407 – Firefighter Search & Rapid Intervention Deployment	NFPA 1407 – Firefighter Movement & Mechanical Advantage
NFPA 1407 – SCBA Familiarization and Confidence	NFPA 1407 – Firefighter Assessment & Emergency Air Supply
NFPA 1407 – Firefighter Entanglement & Disentanglement	NFPA 1407 – Wall Breach & Reduced Profile Maneuvers
NFPA 1407 – Restricted Space & Elevated Firefighter Rescue	1407 – Firefighter below Grade Rescue
NFPA 1407 – Upper Floor Firefighter Egress	

Appendix D

Apparatus Replacement Schedule

NOTLFES - APPARATUS REPLACEMENT SCHEDULE - 10 years from 2023														
Pumper/Rescue Replacement Cycle														
Unit	Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Age		25	26	27	28	29								
FD11	1997	P2A		RESERVE		RETIRE								
Age		19	20	21	22	23	24	25	26					
FD08	2003	P3				RESERVE			RETIRE					
Age		14	15	16	17	18	19	20	21					
FD10	2008	P5	R4	P2A					RETIRE					
Age		12	13	14	15	16	17	18	19	20	21			
FD06	2010	P1				P3			RESERVE					
Age		11	12	13	14	15	16	17	18	19	20	21	22	23
FD09	2011	Out of Service		R4					P3			RESERVE		
Age		6	7	8	9	10	11	12	13	14	15	16	17	18
FD07	2016	P2										P3		
Age		1	2	3	4	5	6	7	8	9	10	11	12	13
FD31	2021	R3												
Age		0	1	2	3	4	5	6	7	8	9	10	11	12
	2022	REPLACE	R5											
Age					0	1	2	3	4	5	6	7	8	9
	2025				REPLACE	P1								
Age									1	2	3	4	5	6
	2028							REPLACE	R4 / R24					
Age											0	1	2	3
	2031										REPLACE	P2 / P24		
Age														
	2036													
2.50%	CPI	875,000	896,875	919,297	942,279	965,836	989,982	1,014,732	1,040,100	1,066,103	1,092,755	1,120,074	1,148,076	1,176,778
15-Year Cycle (FUS)		875,000			942,279			1,014,732			1,092,755			

Aerial Replacement Cycle														
Unit	Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Age		15	16	17	18	19	20							
FD 12	2007	L5						RETIRE						
Age		3	4	5	6	7	8	9	10	11	12	13	14	15
FD 27	2019	L1						A5						
Age								1	2	3	4	5	6	7
	2027						REPLACE	QT1						
2.50%	CPI	1,700,000	1,742,500	1,777,350	1,812,897	1,849,155	1,886,138	1,923,861	1,962,338	2,001,585	2,041,616	2,082,449	2,124,098	2,166,580
20-Year Cycle (FUS)							1,886,138							

Tanker Replacement Cycle														
Unit	Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Age		9	10	11	12	13	14	15	16	17	18	19	20	
FD 20	2013	T3												RETIRE
Age		4	5	6	7	8	9	10	11	12	13	14	15	16
FD 25	2018	T2								T24				
Age		0	1	2	3	4	5	6	7	8	9	10	11	12
	2022	T1												
Age			0	1	2	3	4	5	6	7	8	9	10	11
	2023		T5											
Age														
FD 20	2034												REPLACE?	T3
2.50%	CPI	425,000	435,625	444,338	453,224	462,289	471,535	480,965	490,585	500,396	510,404	520,612	531,024	541,645
20-Year Cycle (FUS)													531,024	

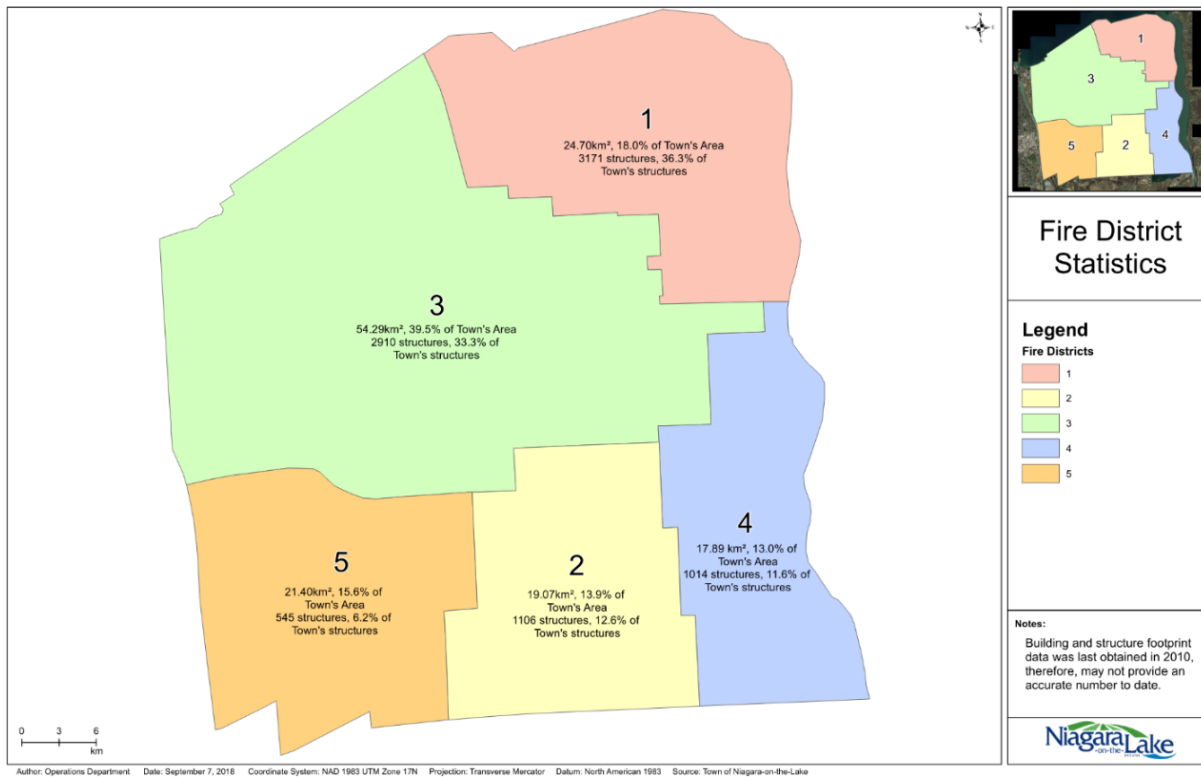
Town of Niagara-on-the-Lake Fire and Emergency Services
Community Risk Assessment: Standards of Cover

Squad Replacement Cycle														
Unit	Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Age			6	7	8	9	10	11	12	13	14	15	16	
FD 17	2017	S1											RETIRE	
Age		2	3	4	5	6	7	8	9	10	11	12	13	14
FD 29	2020	S3												
Age		18	19	20	21									
FD 15	2004	SQ4			RETIRE?									
Age														
	2032			REPLACE	SQ4					SQ24				
Age													1	
	2032											REPLACE	SQ 1	
2.50% CPI		160,000	164,000	167,280	170,626	174,038	177,519	181,069	184,691	188,384	192,152	195,995	199,915	203,913
15-Year Cycle (FUS)				350,000								195,995		

Staff Vehicle Replacement Cycle														
Unit	Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Age		5	6	7	8									
FD 01	2017	C1		RETIRE										
Age		4	5	6	7	8	9	10						
FD02	2018	C5						RETIRE						
Age		6	7	8										
FD04	2016	C4	RETIRE											
Age		3	4	5	6	7	8	9	10					
FD26	2019	C3							RETIRE					
Age		2	3	4	5	6	7	8						
FD28	2020	C2						RETIRE						
Age				1	2	3	4	5	6	7	8	9	10	
	2023		REPLACE	C4									RETIRE	
Age					1	2	3	4	5	6	7			
	2024			REPLACE	C1						RETIRE			
Age								1	2	3	4	5	6	7
	2027						REPLACE	C2						RETIRE
Age									1	2	3	4	5	6
	2028							REPLACE	C5					
Age										1	2	3	4	5
	2029								REPLACE	C3				
Age												1	2	3
	2031										REPLACE	C1		
Age														
	2034													REPLACE
2.50% CPI		0	0	85,000	87,125	89,303	91,536	93,824	96,170	98,574	101,038	103,564	106,153	108,807
20-Year Cycle (FUS)				85,000			91,536	93,824	96,170		101,038			108,807

Appendix E

Response Districts and Approximate Number of Building per District



Appendix F

Response Deployment - Fires

FIRES					
A standard response for a reported structure fire includes 3 Pumpers, 2 Ladders, 1 Heavy Rescue, and 1 Chief Officer					
Alarm Type/Level					
Task	Fires: Grass/ Brush Fire, Rubbish, Vehicle, BBQ, Preliminary Assignment, etc.	Structure Fire Initial Alarm: Residential, Commercial, Industrial	Structure Fire Second Alarm: Residential, Commercial, Industrial	Structure Fire Initial Alarm: Care Facilities, Hotels, Mid-rises, Special Hazard	Structure Fire Second Alarm: Care Facilities, Hotels, Mid-rises, Special Hazard
Apparatus upon Initial Deployment	2 Apparatus^	3 Pumpers, 2 Ladders, 1 Heavy Rescue, 1 Chief Car	5 Pumpers, 2 Ladders, 2 Heavy Rescues, 1 Chief Car	4 Pumpers, 2 Ladders, 1 Heavy Rescue, 1 Chief Car	6 Pumpers, 2 Ladders, 2 Heavy Rescues, 1 Chief Car
Incident Command	1	1	1	1	1
Fire Attack/Investigation	2	2	4	2	4
Min. Water Supply**	1*	1*	1*	1*	1*
Pump Operation	1	1	1	1	1
Backup Team		2	4	2	4
Search & Rescue		2	4	6	6
Rapid Intervention Team		2	4	2	4
Aerial Operator		1	1	1	1
Accountability		1	1	1	1
Incident Safety Officer		1	1	1	1
Min. Operational Reserve		4	8	4	8
Ground Ladders		2	2	2	2
Senior/Duty Officer		1	1	1	1
Total Personnel	Min. 4	Min. 20	Min. 32	Min. 24	Min. 34
* Some personnel will perform various functions throughout an incident as tasks range in duration.					
** If the address is more than 1000' from a municipal fire hydrant, 2 tankers are dispatched along with the aforementioned apparatus.					
^Type of apparatus will vary depending on where the incident occurs within the municipality					

Appendix G

Response Deployment – Fire Alarms

FIRE ALARMS					
A standard response for a Remote Alarm includes a minimum of 2 Fire Apparatus^.					
Alarm Type/Level					
Task	Remote Alarm	Remote Alarm Special Grid			
Apparatus upon Initial Deployment	2 Apparatus^	4 to 5 Apparatus^			
Incident Command	1	1			
Fire Attack/Investigation	2	2			
Min. Water Supply*	1*	1*			
Pump Operation	2	4			
Backup Team		4			
Search & Rescue		2			
Min. Operational Reserve	2	4 to 8			
Total Personnel	Min. 7	Min. 17 to 21			
* Some personnel will perform various functions throughout an incident as tasks range in duration.					
^Type of apparatus will vary depending on where the incident occurs within the municipality					

Appendix H

Response Deployment – Gas and Carbon Monoxide

GAS & CARBON MONOXIDE					
<p>A standard response for a Carbon Monoxide incident reported without symptoms requires 1 apparatus^.</p> <p>A Carbon Monoxide alarm received through a monitoring company or verbally reported with symptoms will require 2 apparatus^.</p> <p>A Natural Gas Leak reported outside of a building requires 2 apparatus^.</p> <p>A Natural Gas Leak reported inside of a building is dispatched as a Preliminary Assignment, which is included under Fire response.</p>					
Alarm Type/Level					
Task	CO – No Symptoms	CO - Symptoms	Natural Gas Leak		
Apparatus upon Initial Deployment	2 Apparatus^	2 Apparatus^	2 Apparatus^		
Incident Command	1	1	1		
Investigation	2	2	2		
Min. Water Supply*			1*		
Pump Operation			1		
Backup Team		2	2		
Min. Operational Reserve		2	2		
Total Personnel	Min. 3	Min. 7	Min. 8		
<p>* Some personnel will perform various functions throughout an incident as tasks range in duration.</p> <p>^Type of apparatus will vary depending on where the incident occurs within the municipality</p>					

Appendix I

Response Deployment – Motor Vehicle Collisions

MOTOR VEHICLE COLLISIONS					
A standard response for MVC responses includes 2 or 3 apparatus. Where high velocity impact, airbag deployment, or ejection is reported, a Rescue is dispatched in addition to the nearest fire apparatus.					
Alarm Type/Level					
Task	Motor Vehicle Collision, Highway	Motor Vehicle Collision, Extrication	Motor Vehicle Collision, Unknown Extrication		
Apparatus upon Initial Deployment	1 Pumper, 1 Rescue, 1 Blocker^	1 Pumper, 1 Rescue, Additional Apparatus**	1 Pumper, Additional Apparatus**		
Incident Command	1	1	1		
Investigation	2*	2*	2*		
Pump Operation	1	1	1		
Extrication	3	3	3*		
Rescue Sector Officer	1	1	1		
Patient Care/Packaging	2	2	2		
Total Personnel	Min. 8	Min. 8	Min. 5		
* Some personnel will perform various functions throughout an incident as tasks range in duration					
^ Blocker truck is dispatched to MVCs on divided highways					
**Type of apparatus will vary depending on where the incident occurs within the municipality					

Appendix J

Response Deployment - Medical

MEDICAL					
A standard response form medical incidents requires the closest fire apparatus to be dispatched.					
Alarm Type/Level					
Task	Medical				
Apparatus upon Initial Deployment	1 Apparatus^				
Incident Command	1				
Investigation	2*				
Patient Care/Packaging	2				
Total Personnel	Min. 3				
* Some personnel will perform various functions throughout an incident as tasks range in duration.					
^Type of apparatus will vary depending on where the incident occurs within the municipality					

Appendix K

Response Deployment – Assistance Calls

ASSISTANCE CALLS					
A standard response for An Assistance call will vary depending on the nature of the call and where within the municipality however, if the assistance call comes in as a rescue, a standard response would include 1 or 2 apparatus^ from the nearest fire station along with the possibility of automatic aid response. High Angle Rescues will bring an aerial platform, heavy rescue, and light rescue squad specifically due to the nature of the incident.					
Alarm Type/Level					
Task	Non-Emergency Assistance	Emergency Assistance	Hazardous Materials, Ice & Water Rescue, High Angle Rescue		
Apparatus upon Initial Deployment	2 Apparatus^	2 Apparatus^	2 Apparatus^ along with 2 or 3 Automatic Aid Apparatus		
Incident Command	1	1	1		
Investigation	2	2	3*		
Min. Water Supply*		1*			
Pump Operation		1			
Search & Rescue		2	3		
Aerial Operator			1		
Technical Rescuers			6**		
Rescue Sector Officer			1**		
Incident Safety Officer		2	1**		
Patient Care/Packaging			3		
Min. Operational Reserve			4		
Senior/Duty Officer			1 + 1**		
Total Personnel	Min. 3	Min. 8	Min. 13 + 9**		
* Some personnel will perform various functions throughout an incident as tasks range in duration.					
^Type of apparatus will vary depending on where the incident occurs within the municipality					
** Personnel providing automatic aid from St. Catharines Fire Services or Niagara Falls Fire Department					

Appendix L

Response History

Call by Type

	2018	2019	2020	2021	2022
Structure fire	36	41	30	32	47
Remote Alarm	190	195	164	184	173
Vehicle Fire	13	13	15	21	19
Grass/Tree/Brush/Rubbish	21	18	23	30	21
Burning Complaint	37	17	37	27	18
Motor Vehicle Collision	136	148	104	123	137
Technical Rescue	0	3	1	1	0
Medical	147	112	89	191	235
Gas and Carbon Monoxide	29	31	45	49	41
Hazardous Material	6	3	4	2	8
Emergency Assistance	50	49	40	37	15
Non-Emergency Assistance	12	8	11	22	18
Ice & Water Rescue	2	1	6	3	2
Total Number of Incidents	662	639	569	722	734

All call types are broken down into these categories, as this is how the information is received from St.Catharines Fire Service. When the Niagara-on-the-lake Fire & Emergency Services report on response type, we have broken the call types down into six main categories. These include:

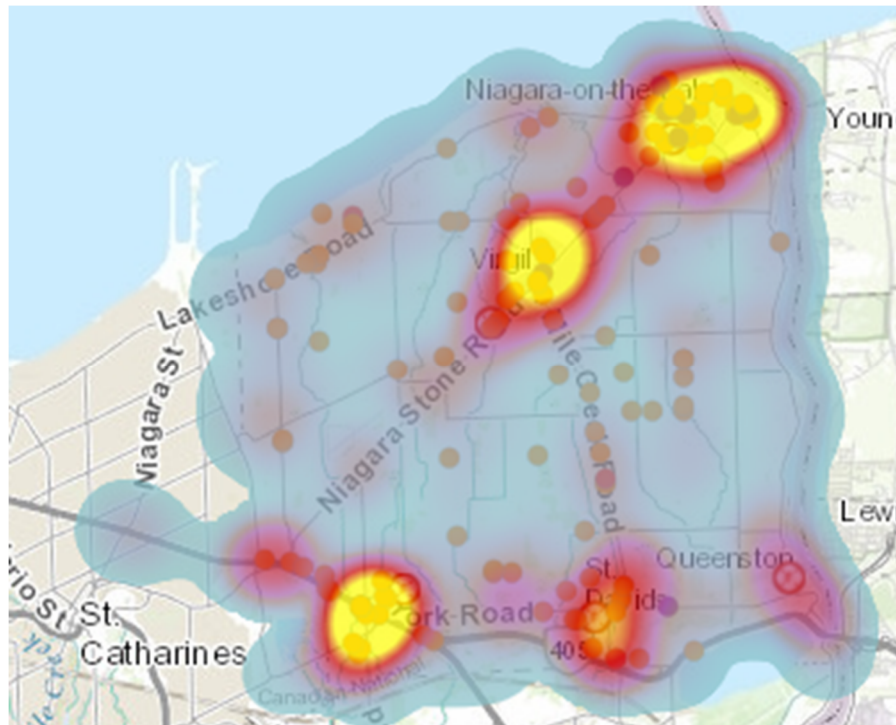
- Fires
- Fire Alarms
- Medicals
- Gas and Carbon Monoxide
- Assistance calls and,
- Motor Vehicle Collisions.

The following Tables and Maps provide a detailed breakdown of what types of incidents are happening throughout the Town and where they are happening. A chart indicating CAD Determinants and Nature Codes is included within each category that Niagara-on-the-Lake Fire & Emergency Services report on.

Appendix M

Fires – All Incidents (2018 – 2022)

	2018	2019	2020	2021	2022
Structure fire	36	41	30	32	47
Vehicle Fire	13	13	15	21	19
Grass/Tree/Brush/Rubbish	21	18	23	30	21
Total Calls	70	72	68	83	87



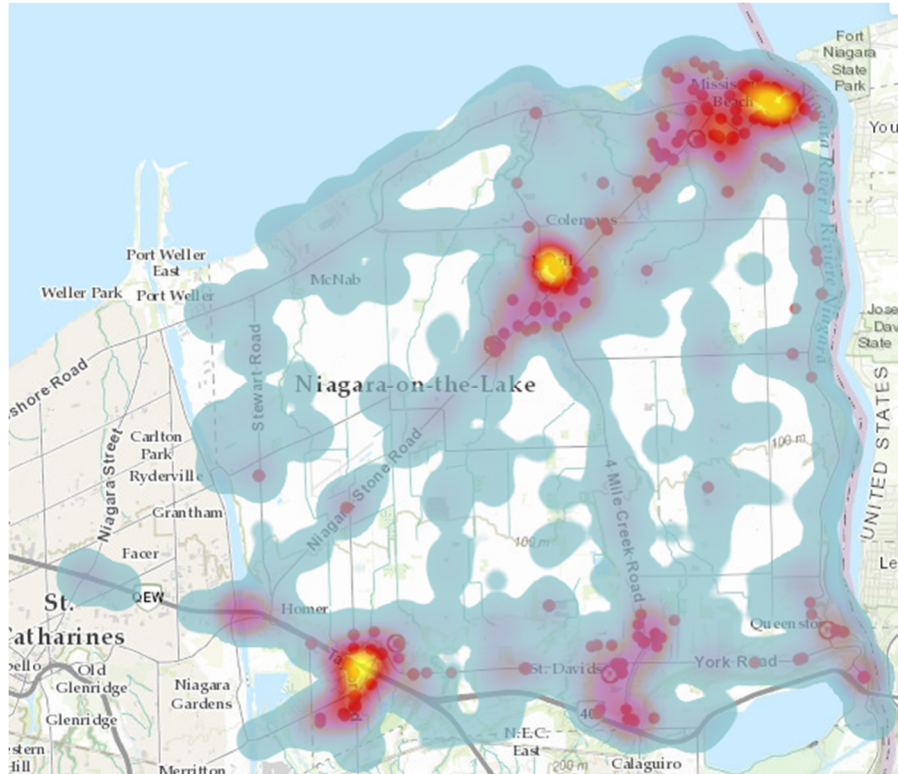
Includes:

Code	Name	Code	Name
1	Structure Fire	101	Smoke coming from the Building
11	Preliminary Assignment	103	Fire of unknown origin
2	Vehicle Fire	104	Electrical Fire
21	Vehicle Fire, Large Scale	105	Kitchen Fire
22	Vehicle Fire near Building	106	Basement Fire
3	Grass Fire	109	Barn Fire
31	Garbage Container Fire	110	Garage Fire
32	Rubbish or Misc. Fire	111	Garbage Container near Building
100	Smoke in the Building	119	Transformer Fire
108	Chimney Fire	120	Barbeque Fire

Appendix N

Fire Alarms – All Incidents (2018 – 2022)

	2018	2019	2020	2021	2022
Remote Alarm	190	195	164	184	173
Total Calls	190	195	164	184	173



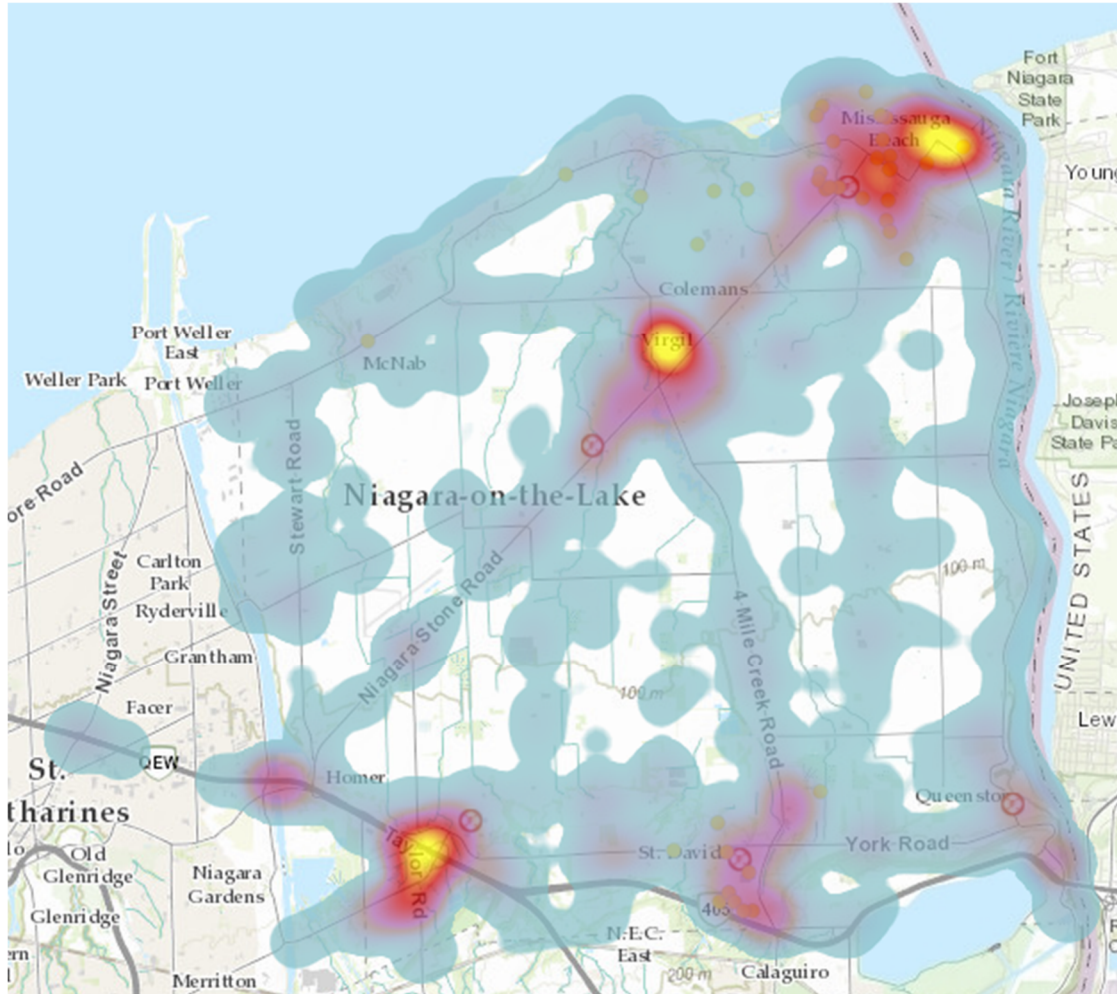
Includes:

Code	Name	Code	Name
10	Remote Alarm	114	Remote Alarm from Security Company
112	Detector Activation	115	Alarm Bells Ringing in Building

Appendix O

Gas and Carbon Monoxide – All Incidents (2018 – 2022)

	2018	2019	2020	2021	2022
Carbon Monoxide	29	31	45	34	41
Total Calls	29	31	45	34	41



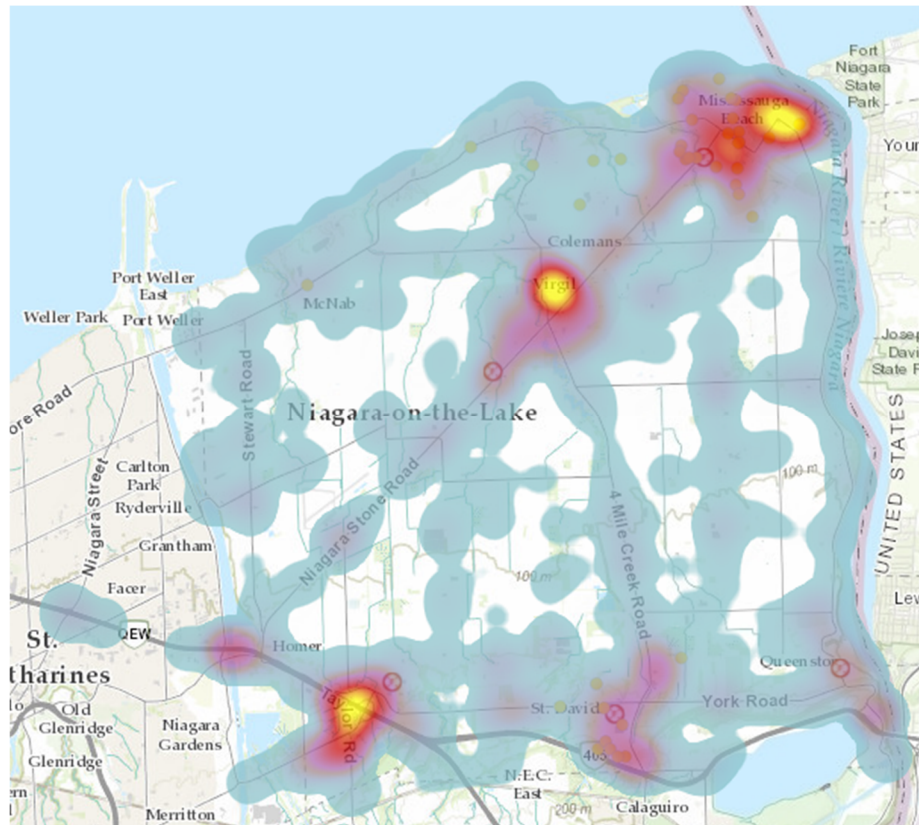
Includes:

Code	Name	Code	Name
52	Carbon Monoxide Symptomatic	116	Ruptured/Damaged Gas Line
53	Carbon Monoxide Non-Symptomatic		

Appendix P

Motor Vehicle Collisions – All Incidents (2018 -2022)

	2018	2019	2020	2021	2022
Motor Vehicle Collision	119	148	104	123	137
Total Calls	119	148	104	123	137



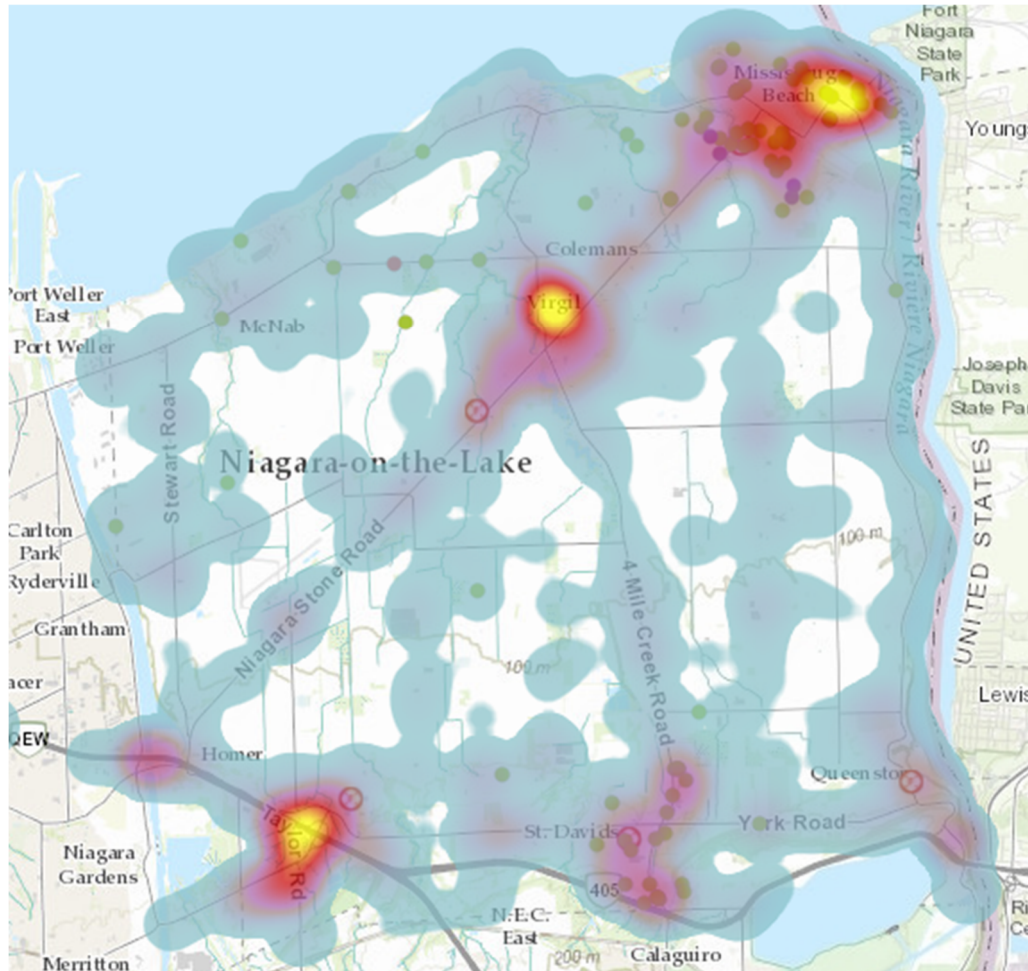
Includes:

Code	Name	Code	Name
4	MVC Unknown Extrication	41	MVC Extrication

Appendix Q

Medical Calls – All Incidents (2018 – 2022)

	2018	2019	2020	2021	2022
Medical	147	112	89	191	235
Total Calls	147	112	89	191	235



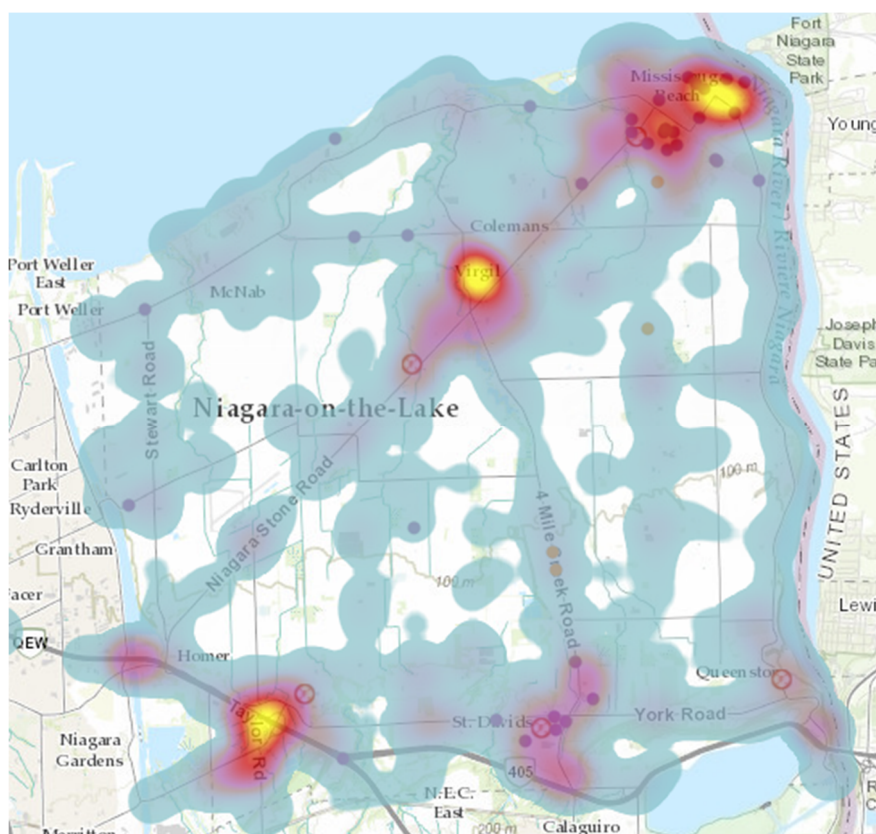
Includes:

Code	Name	Code	Name
5	Emergency Medical Assist	200	FD not required
51	Non-Emergency Medical Assist	201	Medical Assisting using C.P.R.
54	VSA/Cardiac Arrest/Unconscious		
55	Possible Sudden Death		
56	Overdose		

Appendix R

Assistance Calls – All Incidents (2018 – 2022)

	2018	2019	2020	2021	2022
Burning Complaint	37	17	37	27	18
Technical Rescue	0	3	1	1	0
Hazardous Material	6	3	4	2	8
Emergency Assistance	50	49	40	37	15
Non-Emergency Assistance	12	8	11	22	18
Ice & Water Rescue	2	1	6	3	2
Total Calls	107	81	108	94	61



Includes:

Code	Name	Code	Name
102	Smoke in the Area	7	Emergency Assistance Call
118	Arching Hydro Lines	71	Bomb Threat
33	Burning Complaint	72	Elevator Rescue
		73	Odour Investigation

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42	Rescue, general	74	Investigation
43	Rescue, high level/confined	8	Non-Emergency Assistance
44	Rescue, off-road trail	81	Lockout
6	Hazardous material spill	9	Water Rescue
61	Hazardous material – CBRNE	91	Body Recovery with Boat
63	Chemical threat		

Appendix S

Fire Responses 90th Percentile Times Baseline Performances		2018 - 2021	2022	2021	2020	2019	2018
Alarm Handling	Pick-up to Dispatch	Alarm Handling is a contracted service that NOTL has no control over. While important to understand, the NOTL Fire & Emergency Services is not reporting on these times.					
Turnout Time	Turn out Time of 1st Unit	08:46	08:54	08:20	08:22	09:03	09:13
Travel Time	Travel Time of 1st Unit Distribution	05:43	06:22	05:26	05:39	05:42	05:28
	Travel Time of ERF Concentration	10:39	11:13	11:07	08:02	09:35	13:20
Total Response Time	Total Response Time of 1st Unit on Scene Distribution	13:28	15:07	12:06	12:40	14:13	13:13
	Total Response Time of ERF Concentration	21:18	27:12	19:45	18:20	20:59	20:16

* Turn out Time is from the activation of the volunteer's pager until the first apparatus acknowledges it is responding.

* Travel Time is the time it takes a responding apparatus to arrive and announce to be on the scene.

* Response Time is the total time from when a firefighter's pager is activated to the time the apparatus arrives on the scene at an incident.

* 2022 data was pulled from the Department's new Emergency reporting Software. As such, the data is believed to be further detailed than previous years. This has a lead to an understanding that reported times may fluctuate and be more realistic from previous years, when data was manually extracted from Computer Automated Dispatch generated charts.

Appendix T

Fire Alarm Responses 90th Percentile Times Baseline Performances		2018 - 2021	2022	2021	2020	2019	2018
Alarm Handling	Pick-up to Dispatch	Alarm Handling is a contracted service that NOTL has no control over. While important to understand, the NOTL Fire & Emergency Services is not reporting on these times.					
Turnout Time	Turn out Time of 1st Unit	09:11	09:21	08:47	08:48	09:33	09:24
Travel Time	Travel Time of 1st Unit Distribution	04:30	05:15	04:30	04:08	04:09	04:27
	Travel Time of ERF Concentration	06:46	06:50	06:45	07:23	05:25	07:29
Total Response Time	Total Response Time of 1st Unit on Scene Distribution	12:42	13:27	12:20	12:15	12:40	12:49
	Total Response Time of ERF Concentration	16:26	17:27	15:44	15:50	16:18	16:49

* Turn out Time is from the activation of the volunteer's pager until the first apparatus acknowledges it is responding.

* Travel Time is the time it takes a responding apparatus to arrive and announce to be on the scene.

* Response Time is the total time from when a firefighter's pager is activated to the time the apparatus arrives on the scene at an incident.

* 2022 data was pulled from the Department's new Emergency reporting Software. As such, the data is believed to be further detailed than previous years. This has a lead to an understanding that reported times may fluctuate and be more realistic from previous years, when data was manually extracted from Computer Automated Dispatch generated charts.

Appendix U

Gas & Carbon Monoxide 90th Percentile Times Baseline Performances		2018 - 2021	2022	2021	2020	2019	2018
Alarm Handling	Pick-up to Dispatch	Alarm Handling is a contracted service that NOTL has no control over. While important to understand, the NOTL Fire & Emergency Services is not reporting on these times.					
Turnout Time	Turn out Time of 1st Unit	10:24	10:14	10:21	10:29	10:46	10:11
Travel Time	Travel Time of 1st Unit Distribution	05:26	05:51	05:15	05:13	06:09	04:42
	Travel Time of ERF Concentration	07:18	08:48	07:36	06:32	06:33	07:01
Total Response Time	Total Response Time of 1st Unit on Scene Distribution	14:28	16:01	14:23	13:37	14:50	13:31
	Total Response Time of ERF Concentration	19:50	25:21	21:26	17:47	17:23	17:12

* Turn out Time is from the activation of the volunteer's pager until the first apparatus acknowledges it is responding.

* Travel Time is the time it takes a responding apparatus to arrive and announce to be on the scene.

* Response Time is the total time from when a firefighter's pager is activated to the time the apparatus arrives on the scene at an incident.

* 2022 data was pulled from the Department's new Emergency reporting Software. As such, the data is believed to be further detailed than previous years. This has a lead to an understanding that reported times may fluctuate and be more realistic from previous years, when data was manually extracted from Computer Automated Dispatch generated charts.

Appendix V

Motor Vehicle Collision Responses 90th Percentile Times Baseline Performances		2018 - 2021	2022	2021	2020	2019	2018
Alarm Handling	Pick-up to Dispatch	Alarm Handling is a contracted service that NOTL has no control over. While important to understand, the NOTL Fire & Emergency Services is not reporting on these times.					
Turnout Time	Turn out Time of 1st Unit	08:17	08:51	08:14	07:53	08:32	07:57
Travel Time	Travel Time of 1st Unit Distribution	06:04	05:42	05:51	05:49	05:59	07:01
	Travel Time of ERF Concentration	09:08	08:51	08:37	09:47	08:36	09:47
Total Response Time	Total Response Time of 1st Unit on Scene Distribution	12:36	13:37	11:54	12:20	13:17	11:54
	Total Response Time of ERF Concentration	16:35	18:02	15:11	15:41	16:24	17:35

* Turn out Time is from the activation of the volunteer's pager until the first apparatus acknowledges it is responding.

* Travel Time is the time it takes a responding apparatus to arrive and announce to be on the scene.

* Response Time is the total time from when a firefighter's pager is activated to the time the apparatus arrives on the scene at an incident.

* 2022 data was pulled from the Department's new Emergency reporting Software. As such, the data is believed to be further detailed than previous years. This has a lead to an understanding that reported times may fluctuate and be more realistic from previous years, when data was manually extracted from Computer Automated Dispatch generated charts.

Appendix W

Medical Responses 90th Percentile Times Baseline Performances		2018 - 2021	2022	2021	2020	2019	2018
Alarm Handling	Pick-up to Dispatch	Alarm Handling is a contracted service that NOTL has no control over. While important to understand, the NOTL Fire & Emergency Services is not reporting on these times.					
Turnout Time	Turn out Time of 1st Unit	08:59	09:07	08:47	07:58	09:40	09:24
Travel Time	Travel Time of 1st Unit Distribution	04:47	05:08	04:59	04:27	04:32	04:47
	Travel Time of ERF Concentration	N/A	N/A	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time of 1st Unit on Scene Distribution	12:39	13:21	12:21	11:46	13:22	12:26
	Total Response Time of ERF Concentration	N/A	N/A	N/A	N/A	N/A	N/A

- * Turn out Time is from the activation of the volunteer's pager until the first apparatus acknowledges it is responding.
- * Travel Time is the time it takes a responding apparatus to arrive and announce to be on the scene.
- * Response Time is the total time from when a firefighter's pager is activated to the time the apparatus arrives on the scene at an incident.
- * 2022 data was pulled from the Department's new Emergency reporting Software. As such, the data is believed to be further detailed than previous years. This has a lead to an understanding that reported times may fluctuate and be more realistic from previous years, when data was manually extracted from Computer Automated Dispatch generated charts.

Appendix X

Assistance Responses 90th Percentile Times Baseline Performances		2018 - 2021	2022	2021	2020	2019	2018
Alarm Handling	Pick-up to Dispatch	Alarm Handling is a contracted service that NOTL has no control over. While important to understand, the NOTL Fire & Emergency Services is not reporting on these times.					
Turnout Time	Turn out Time of 1st Unit	09:27	08:39	09:58	08:41	10:26	09:32
Travel Time	Travel Time of 1st Unit Distribution	05:47	05:07	06:31	06:06	05:41	05:28
	Travel Time of ERF Concentration	09:34	06:55	15:17	15:16	04:56	05:24
Total Response Time	Total Response Time of 1st Unit on Scene Distribution	14:03	12:53	14:38	13:05	15:31	14:06
	Total Response Time of ERF Concentration	18:30	17:23	23:04	19:52	16:10	15:59

* Turn out Time is from the activation of the volunteer's pager until the first apparatus acknowledges it is responding.

* Travel Time is the time it takes a responding apparatus to arrive and announce to be on the scene.

* Response Time is the total time from when a firefighter's pager is activated to the time the apparatus arrives on the scene at an incident.

* 2022 data was pulled from the Department's new Emergency reporting Software. As such, the data is believed to be further detailed than previous years. This has a lead to an understanding that reported times may fluctuate and be more realistic from previous years, when data was manually extracted from Computer Automated Dispatch generated charts.

Appendix Y

Responses* per Month, per Time of Day. (2018-2022)

	00:00 - 03:59	04:00 - 07:59	08:00 - 11:59	12:00 - 15:59	16:00 - 19:59	20:00 - 23:59
January	17	26	43	68	50	34
February	17	15	47	46	66	27
March	13	23	57	57	43	33
April	16	16	57	64	51	43
May	13	12	55	70	65	47
June	22	22	55	73	75	51
July	24	34	63	106	101	51
August	28	26	72	88	80	61
September	25	26	82	75	77	44
October	22	20	64	67	71	41
November	20	22	68	65	61	39
December	19	21	58	68	60	30
	236	263	721	847	800	501

Total: 3368

**Response references every time a call for fire department assistance is placed.*

Appendix Z

Responses* per month, per day of the week. (2018-2022)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
January	46	32	37	32	26	34	31
February	23	33	43	35	36	22	28
March	36	33	31	27	30	34	33
April	35	39	30	34	31	43	35
May	38	40	46	42	26	31	39
June	46	34	51	43	49	51	40
July	47	51	50	52	59	62	53
August	43	49	39	59	42	69	44
September	34	40	33	44	56	59	63
October	34	41	41	43	40	47	36
November	39	39	35	34	28	41	48
December	30	41	37	43	24	37	41
Total	451	472	473	488	447	530	491

Total:3352

**Response references every time a call for fire department assistance is placed.*