



Meeting Date: January 24, 2024

Prepared By: Director of Emergency Services & Fire Chief – Colin Toth

Submitted by: Director of Emergency Services & Fire Chief – Colin Toth

Report No: FS 01-2024

Subject: Middlesex Centre Fire Services 2023 Year-End Report

Recommendation:

THAT Report FS-01-2024, re: Middlesex Centre Fire Services 2023 Year-End Report be received for information.

Purpose:

To update Council as to the 2023 year-end statistics relating to Fire Services. This report includes statistics for fire and emergency response, strategic objectives and project status, new partnerships, grants, donations and staff development.

Background:

In order to keep Council apprised and informed, Fire Services provides a detailed annual report as to call volume, activities, response times and department status – with the intent of maintaining good communication and ensuring transparency while providing competent and factual information.

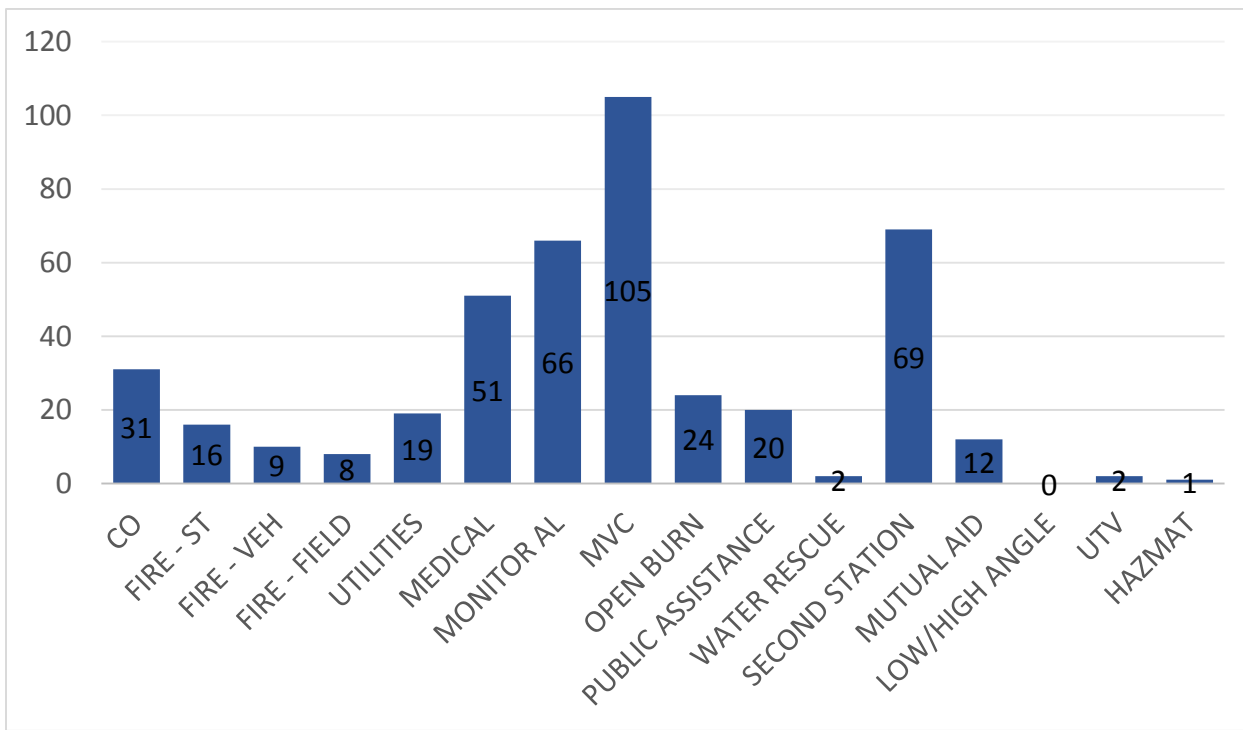
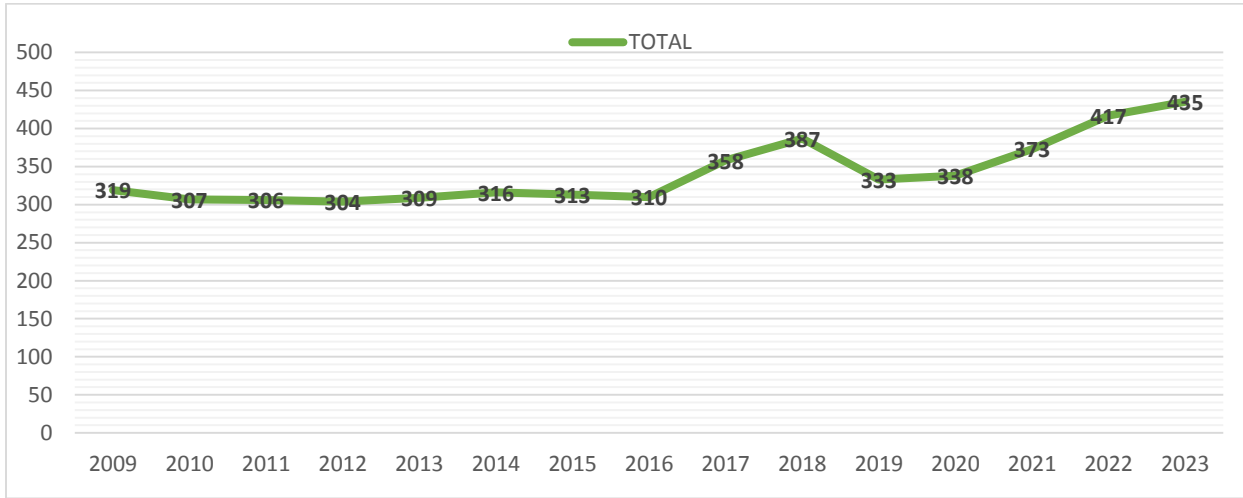
Analysis:

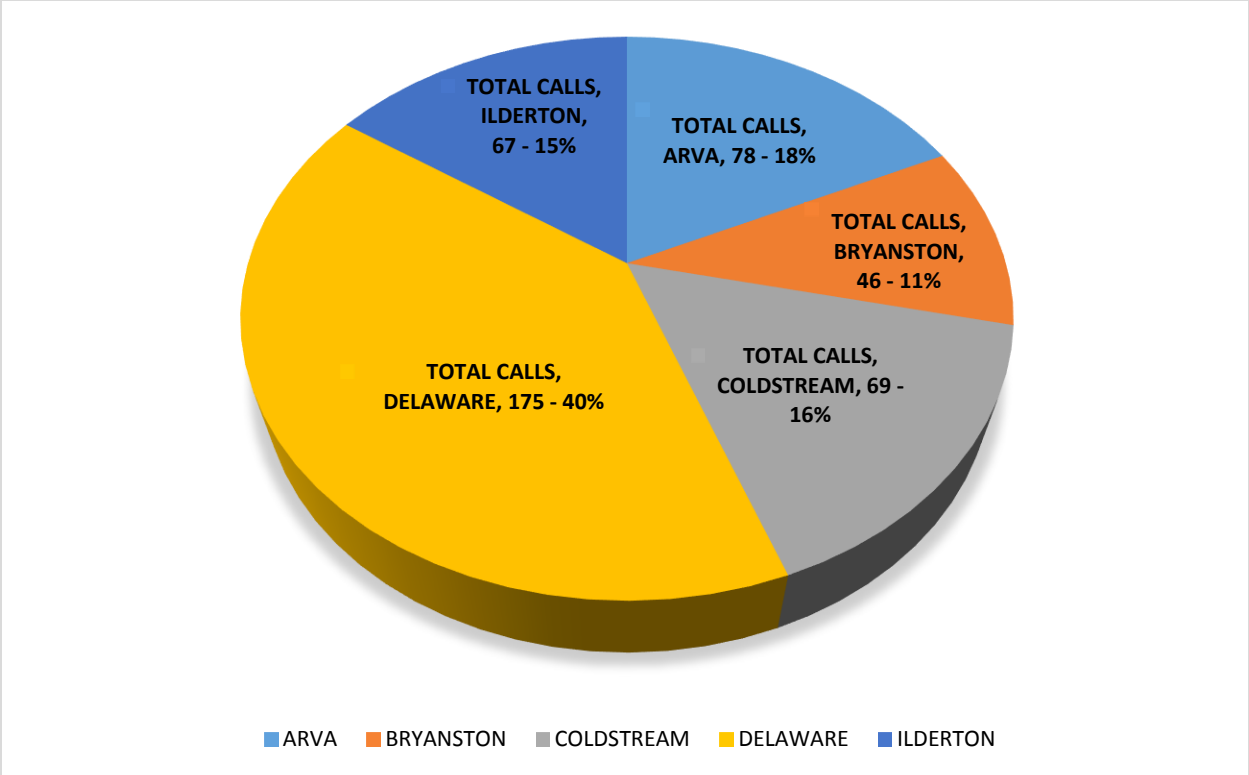
Department Incidents

In the 2023 fiscal year, Middlesex Centre Fire Services (MCFS) responded to **435** emergencies, as compared to **417** in 2022, **373** in 2021, and **338** in 2020.

Although total requests for assistance fluctuate month-over-month, year-end numbers demonstrate an increase of approximately 5-10% year over year. More importantly, an escalating trend is evident from 2017 to 2023. As of 2022, motor vehicle collisions (MVC's) continue to be our highest response category.

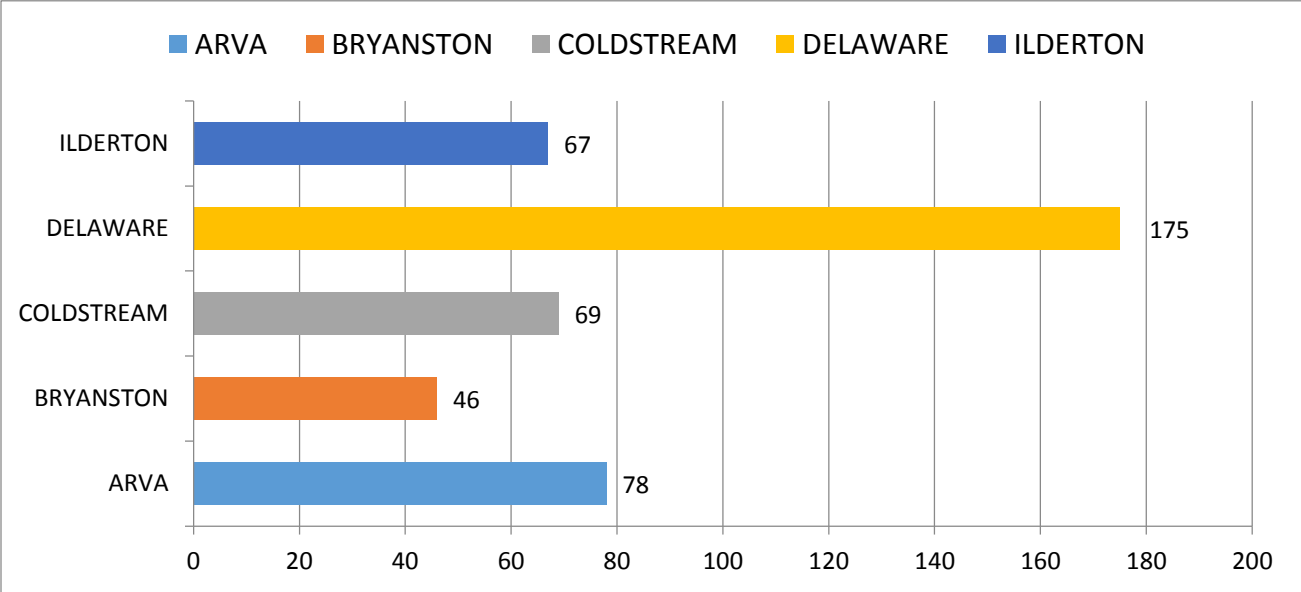
Below are three graphs representing response metrics specific long-term trends, response type and the percentage of emergency responses based on station geographical area.





Individual Station Response

As total response numbers for 2023 are **435**, individual station numbers resulted with Arva answering **78** incidents, Bryanston to **46**, Coldstream to **69**, Delaware **175** and Ilderton to **67**.

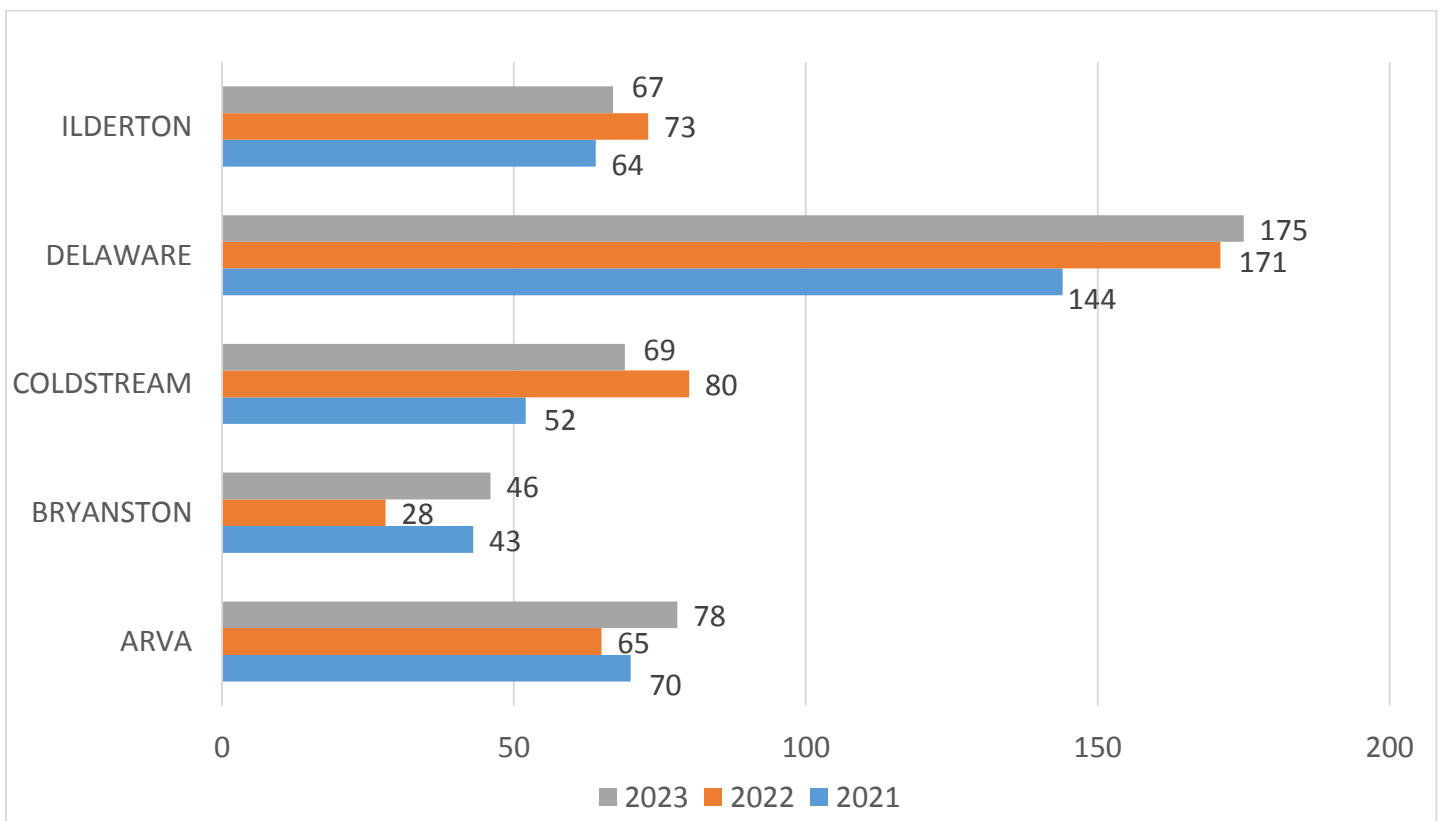


Additional station response charts are attached to this report as “Schedule A”.

Department protocol requires response support from an additional station depending on the incident type, situation, and location - denoted as a “second station” response. (i.e. involved MVC’s, structure fires, water rescue, and other incidents as deemed necessary by the on-scene Incident Commander)

In 2023, MCFS provided second station support as follows: Arva assisted with **28** incidents, Bryanston **6**, Coldstream **24**, Delaware **0**, and Ilderton **11**. (**69** second station responses overall)

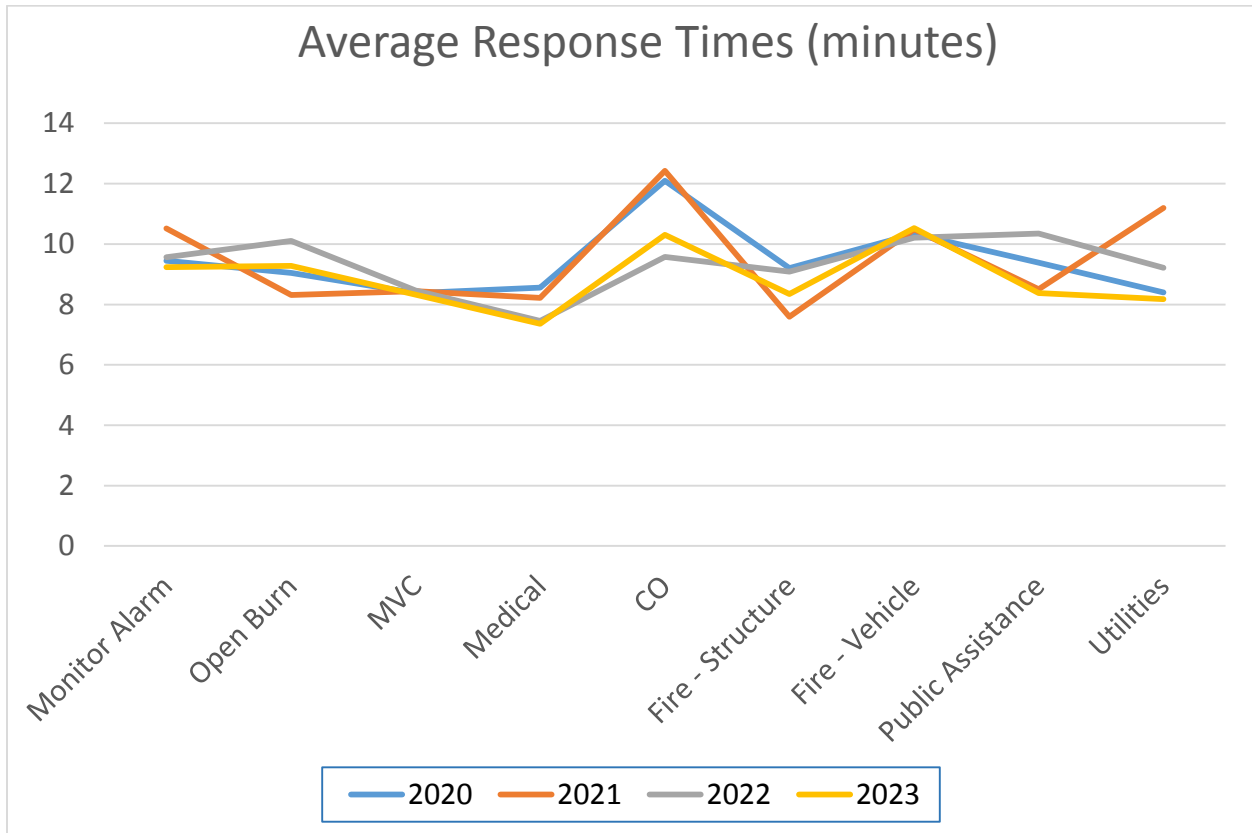
The chart below provides a three-year emergency response comparison for all stations, responding as primary and secondary support stations.



Response Times

Overall response times are measured when the firefighters receive the emergency page until the first apparatus arrives on the scene. These times are dependent on the availability and proximity of firefighters to their stations and/or their distance from their current location to the incident. (Depending on the station response model)

The average 2023 response time for incidents at MCFS stations is shown below categorized based on the specific call types. (Not including second station and mutual aid responses)

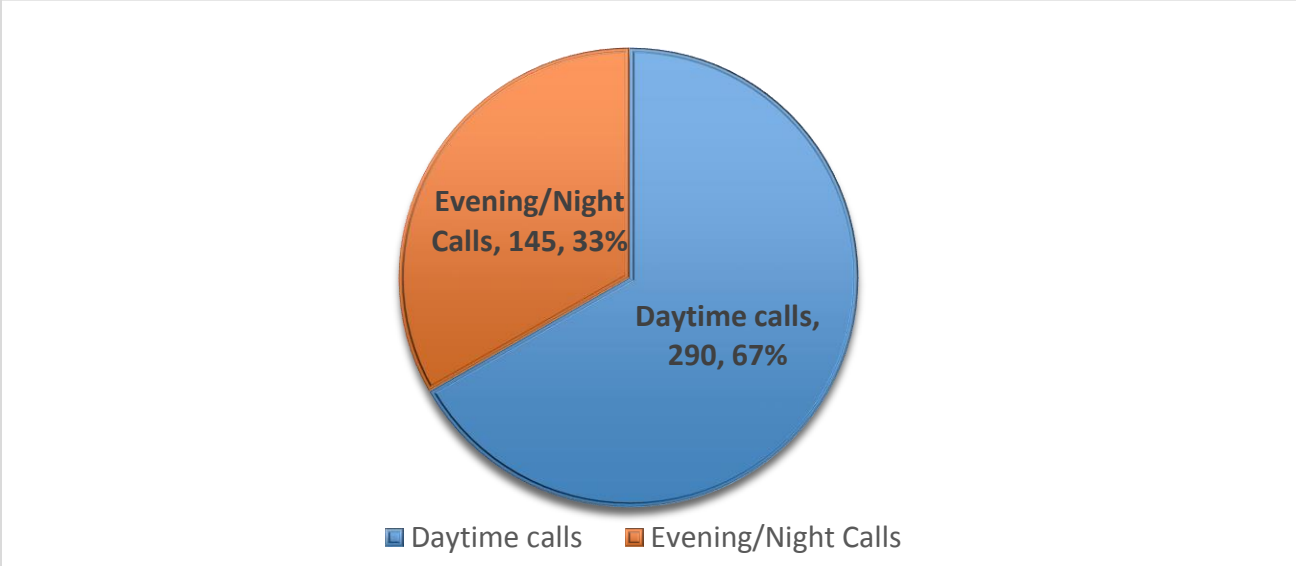


The Department averaged **11** firefighters per incident in 2023 identical to 2022 and **10** in 2021. This average considers many types of incidents such as medical response, fires, MVC's, open-air burning complaints, and other incidents. (Does not include CO, second station or mutual aid responses)

Response by Time of Day

Being cognizant of when calls are taking place throughout the day is imperative for paid on-call departments and allows for competent pre-planning including other key functions.

The critical information provided from this data set ensures MCFS has proper staffing and municipal coverage, second station assistance, maintains automatic aid agreements and confirms proper resources are available 24/7. As can be observed, the majority of calls answered in 2023 were during daytime hours. This is primarily the most difficult time for MCFS firefighters to respond due to employment situations or simply not being able to respond promptly.



Fire Loss Statistics

In 2023, the estimated dollar loss of fire events was approximately \$6.94 Million as compared to \$1.58 Million in 2022, \$6.8 Million in 2021, and \$2.8 million in 2020. The increase over 2022 can be attributed, in part, to an increase in large-scale structure fires however, this can also be attached to the type of structure involved and content/equipment lost during the event.

It is also important to note that the Office of the Fire Marshal (OFM) and MCFS Investigators base dollar loss statistics on the best estimate of contents and property replacement values at the time of the incident.



Fire Prevention Inspections and Investigations

Municipality of Middlesex Centre provides Fire Prevention services to the Municipalities of North Middlesex and Thames Centre through service agreements. MCFS currently employs one full-time Fire Prevention Officer (FPO) to fulfill the needs of the program. In early 2023, the program scope was modified, removing the provision of fire investigative services for Thames Centre.

Specific duties associated with the program include fire safety inspections, consultation, assisting with some public education delivery, courtroom and legal intervention, fire investigations and records management.

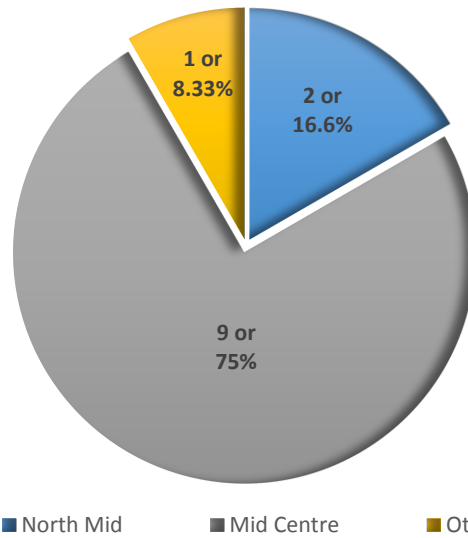
The annual inspection schedule covers all three municipality's inspectable properties and prioritizes them based on type and risk - spread over a four-year cycle. (Utilizing industry best practices and subsequent standards) This schedule continues to evolve resulting in the implementation of efficiencies and increased level of service.

MCFS Fire Prevention conducted **252** fire inspections throughout our three serviced Municipalities. (Compared to 278 in 2022 and 232 in 2021) **This number does not include re-inspections which can often mirror the total inspection number.** The following types of occupancies were inspected:

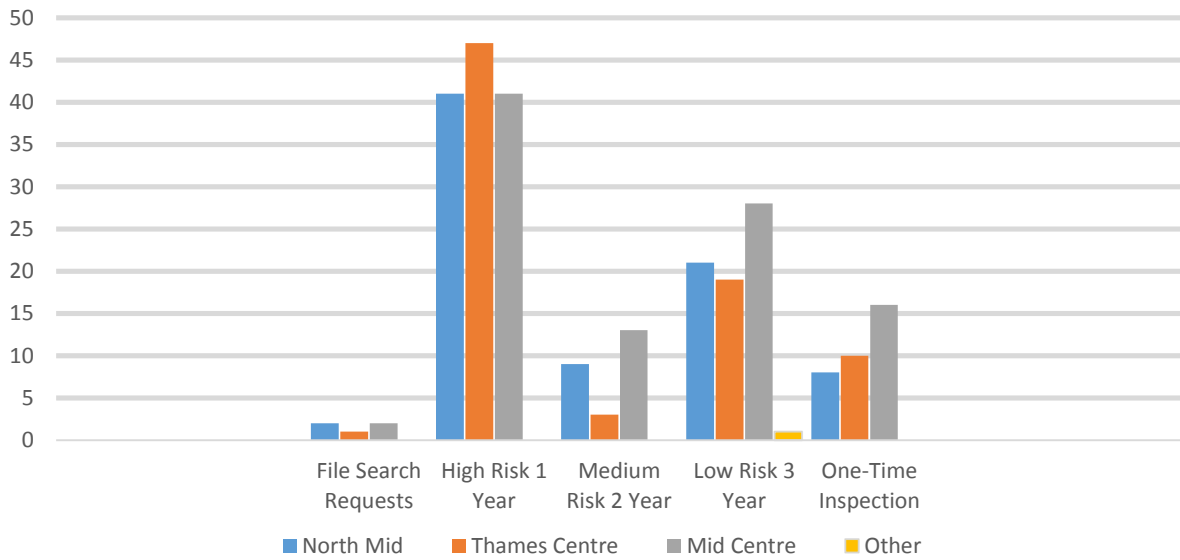
- Assembly (High Risk)
- Industrial (High to Medium Risk)
- Institutional – Vulnerable Occupancies (High Risk)
- Business and Personal Services (Low Risk)
- Residential (High to Medium Risk)
- Mercantile (Low Risk)

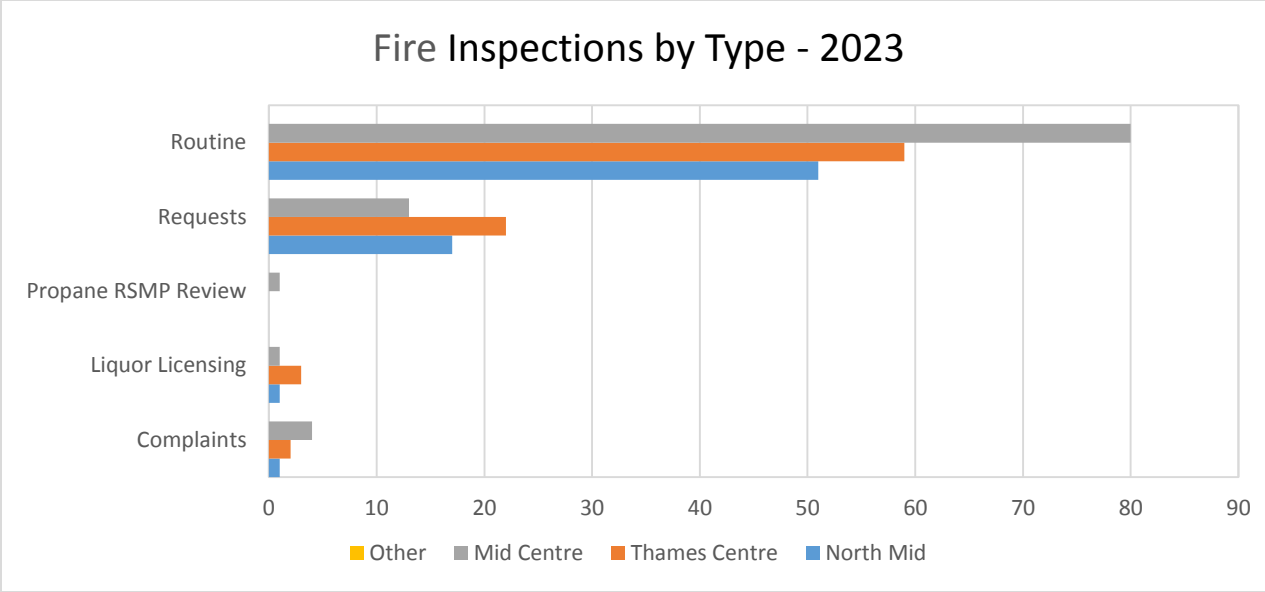
Another component of service provided under the purview of the program is that of Fire Investigations. These investigations are imperative to identify fire trends, determining origin and cause and directing focus for education. However, they are time-consuming and detailed in part due to the potential liability that customarily accompanies them. In 2023 the Fire Prevention Division investigated **9** fires in Middlesex Centre and **2** in North Middlesex, with **1** classified as “other”, totalling **12**.

Fire Investigations - 2023



Fire Inspections by Risk Level - 2023





Fire Service Revenue and Costs

Motor Vehicle Responses

In 2023, Fire Services invoiced non-residents of Middlesex Centre a total of \$104,748 for Motor Vehicle Collisions. This figure has increased significantly over the 2022 value of \$69,000. This metric indicates an increase in MVC involving non-residents and an overall increase in the number of incidents themselves. At the time of this report, approximately \$4,000 has yet to be invoiced. (These numbers do not consider invoices paid to date)

Asset Liquidation

Based on tool upgrading projects in 2023, various pieces of outdated equipment were liquidated to recover revenue for Fire Services reserves. In 2023, liquidated assets amounted to approximately **\$1600**.

Grants and Donation Opportunities

Through the year, various grant opportunities were explored with many successfully achieved. These include:

- Project Assist which provided free training materials
- Fire Marshall’s Public Fire Safety Council Grant
- Project Zero, which provided free smoke and carbon monoxide alarms for public distribution.
- Community Emergency Preparedness Grant ****Awaiting status Update****

Fire Marque Inc.

Fire Marque Inc. continues to be an affordable and effective way to recuperate costs incurred by the municipality after responding to structure fires. This revenue stream is solely dependent on the number of fires attended by MCFS over a year.

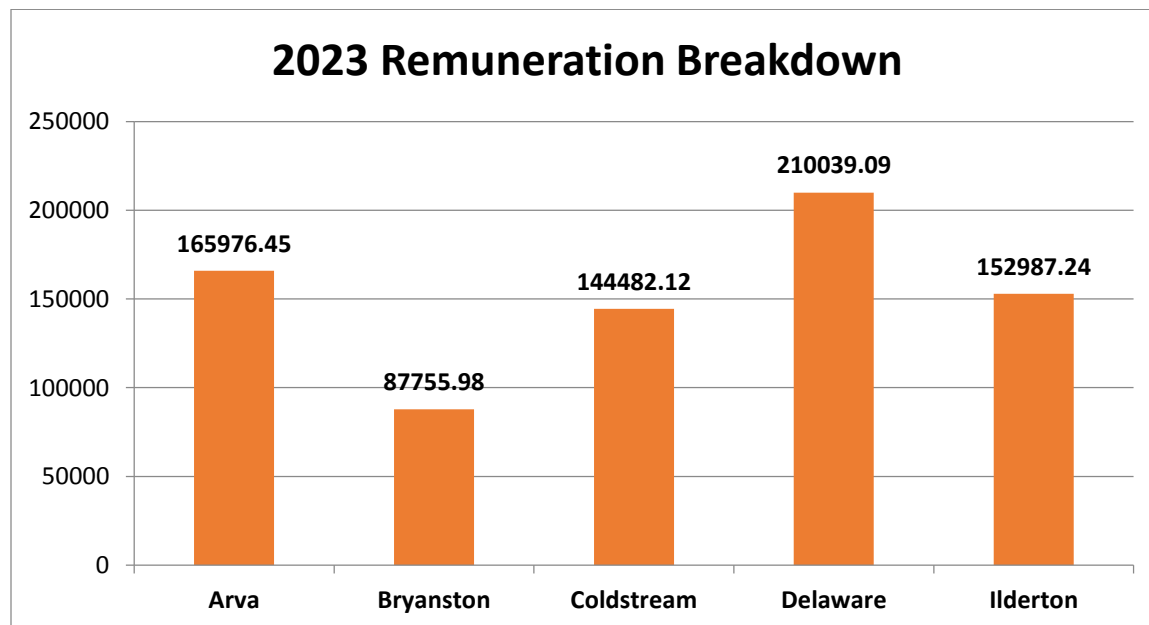
In **2023**, Fire Marque was able to recover **\$35,654.34** as compared to **\$12,749.24** in **2022**. It is important to understand that Fire Marque provides most of the remuneration at the end of each calendar year. Many ongoing claims are held depending on file status. Therefore, in some years the Municipality will see a “spike” in funds received. Fire Marque funds are utilized in several unique situations; however, an example of this would be the recent department radio upgrade/replacement program.

Incident Reports and Fireworks Permits

The Municipality’s Fees and Charges By-law includes a provision to invoice for requested copies of our emergency response reports and permits for fireworks events. In **2023**, the Municipality received **\$852** for incident response report requests and **\$265.49** being collected for fireworks permits.

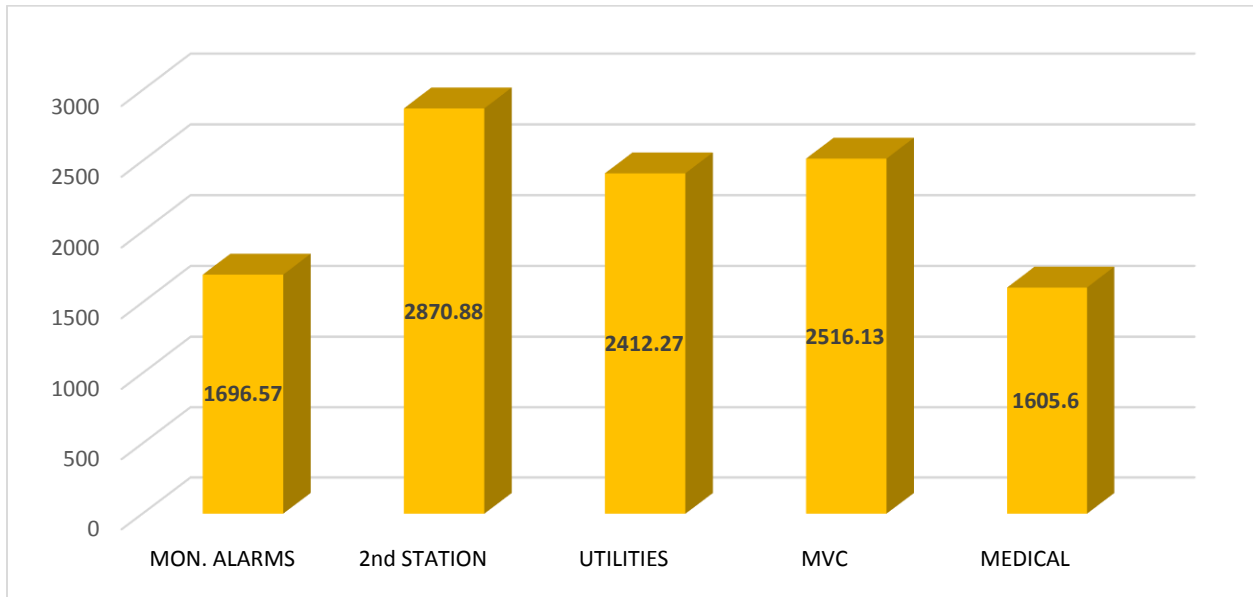
Firefighter Payroll

Middlesex Centre compensates our paid-on-call firefighters on a “points pay” system with base remunerations being provided for Officer positions only. The chart below depicts compensation costs by station for 2023.



Specific Incident Response Costs

Below is a cost breakdown per response for specific types - MCFS' "Top Five".



Training, Recruiting, Retirements and Officer Development

Standardized Training - Disciplines – Core Content Focus

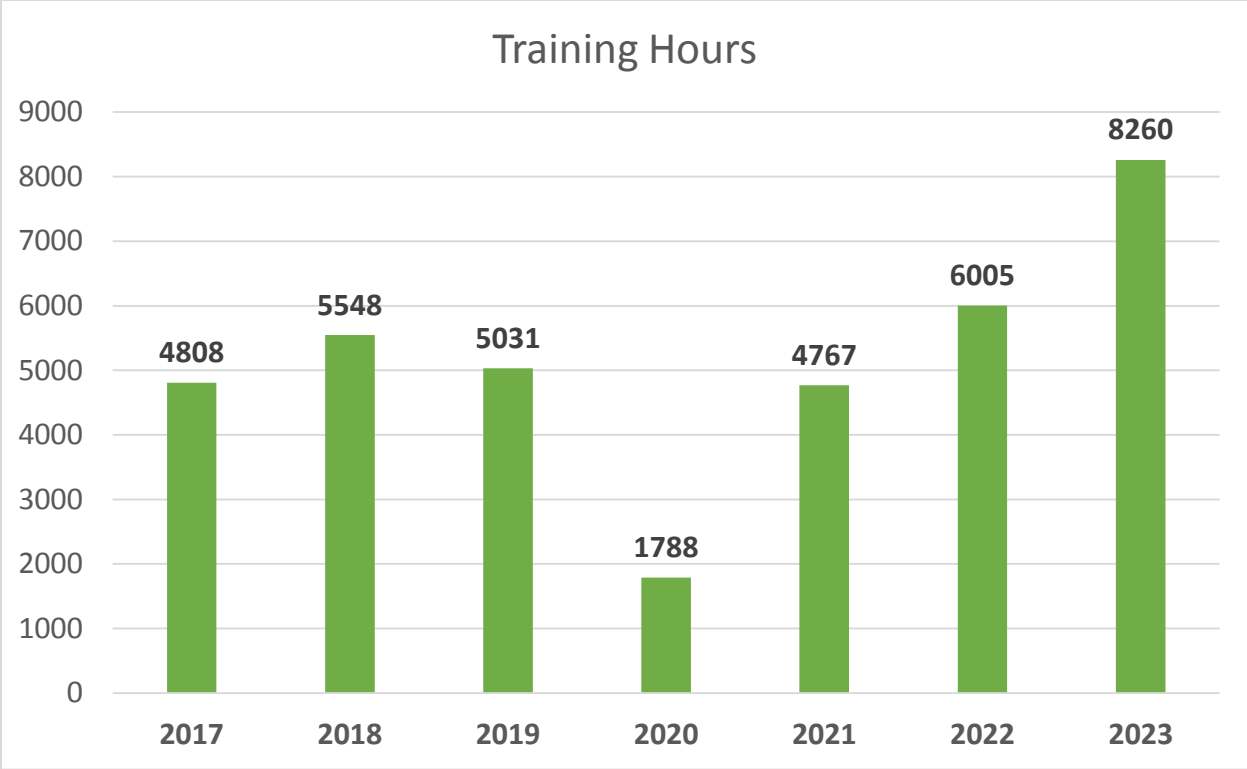
2023 saw changes to our training certification program with the passing of O. Reg 343/22 – Firefighter Certification. This new regulation dispels all doubt as to certification requirements, options to comply and reasoning and benefits of compliance. For MCFS, this means a minimal upfront training commitment for existing firefighters based on past grandfathering but does mean additional monitoring, tracking and documentation to ensure compliance is maintained. It also must be understood that certification of new firefighters must take place going forward to meet this regulation with costs attached.

MCFS is continuing our partnership with the Elgin County Regional Training Centre (RTC) under the oversight of the Office of the Fire Marshal (OFM) to access additional certification courses, resources, and unique training opportunities.

However, strong consideration favouring in-house training of various training disciplines will be explored with potential development/deployment in late 2024 into 2025.

Referring to our internal training curriculum - through the course of a year, the training division consisting of a Chief Training Officer and five Training Officers, develops, delivers, and documents a schedule of standardized training evolutions based on the new certification regulation. The graph below depicts the combined training hours for 2023 along with the standardized topics covered.

- Fire Streams
- NFPA 1001/1072 – Recruit Training
- NFPA 1041 – Fire Service Instructor Level 1
- NFPA 1021 – Officer Training Level 1
- NFPA 1521 – Incident Safety Officer
- Structural Search, Victim Removal, Survival, and fire behaviour
- Scene Lighting & Scene Safety
- Auto Extrication
- Emergency Medical Care & First Aid
- Driver Training
- Water & Ice Rescue
- High & Low Angle
- Firefighter Safety & Health
- Personal Protective Equipment
- Fire Department Communications
- Pumper and Tanker Operations
- Equipment Familiarization
- Water Supply & Fire Streams
- Ladders
- Pre-Planning
- Ropes, Webbing & Knots
- Hoses lays and ancillary equipment use
- Loss Control
- Rescue Tools
- Technical Rescue



Specialty Rescue Services

Fire Services currently operates two special operations rescue teams - High-angle rope rescue and Surface/Swift water and Ice rescue. Delaware station continues to provide rope rescue services and Coldstream maintains water rescue.

Currently, our water team supports Strathroy-Caradoc and North Middlesex through service contracts however, future consideration may include providing team expertise and support in collaboration with additional neighbouring municipalities.

The Department presently has ten (10) firefighters trained in water rescue techniques with ten (10) trained in high angle rescue.

Paid On-Call Professional Firefighter Recruitment

Continuing into 2023 is MCFS’ redesigned recruitment program that creates a cost-effective, streamlined, and defensible process to meet industry-accepted recruiting practices. The 2023 recruitment resulted in **59** applications submitted for review. **24** candidates were interviewed with **12** being offered positions. Three applicants were subsequently placed onto our reserve list with one being offered a position after the fact.

These numbers do not include our new Deputy Fire Chief of Operations and Training and Fire Prevention Officer.

Firefighter Retirements, Resignations and Promotions

2023 saw the retirement of **2** senior firefighters - one from Delaware station and one from Coldstream. In turn, we had **5** resignations with **1** firefighter accepting a position with a career department, **3** moving out of MCFS response area and **1** classified as “other”.

2023 also had several promotions - one Captain and Lieutenant at Arva station and two Captains in Delaware!

The current staff complement of MCFS sits at 120, including headquarters staff.

Staff Development, Training and Succession Planning

MCFS will continue to move forward with our internal “Recruit to Officer” training program, which includes a variety of new offerings and opportunities for 2023-24. Some of these new opportunities include: NFPA 1521 Incident Safety Officer, 1002 Apparatus Operator, 1021 Fire Officer, 1041 Fire Service Instructor and 1033 Fire Investigator. (All of which are offered as blended program opportunities)

Also, two of our senior Officers have enrolled in the corporate management program through the University of Waterloo, continuing into 2023.

Finally, maintaining and upgrading the skills and tactics of our Training Officers continue in order to meet the increasing demand of Industry and new certification standards.

Driver Certification Program

In 2018, Middlesex Centre Fire Services entered into a service agreement with the Township of Malahide to train apparatus operators to the required Ontario class “D” license with a “Z” air brake endorsement at a significantly reduced cost!) In 2023, through this Ministry of Transportation-approved Driver Certification Program, **9** firefighters attended and received their “D” license and “Z” endorsement.

Department Projects, Initiatives and Partnerships

Projects and Initiatives

In 2023, several new projects began, many were completed with others outstanding primarily based on their nature. Below is a table representing strategic accomplishments.

Table 1: 2023 Strategic Accomplishments for Fire & Emergency Services

Task/Project	Timing	Strategic Alignment - Priority	Strategic Alignment - Objective	Performance Measures	Budget
Fire Prevention & Investigation Services - Municipal partnerships	2021-2026	Strat Plan 5 – Responsive Municipal Government	5.4 - Expand our partnerships	<ul style="list-style-type: none"> As of end-December 2023, conducted 252 inspections and 12 fire investigations in support of Middlesex Centre and two additional municipalities. 	\$59,000
Deployment of the Fire Services Master Plan - Fire and Community Risk Assessment	2022-2028	Strat Plan 4 – Sustainable Infrastructure and Services	4.2 - Expand existing services with the pace of new development, and apply a financial sustainability lens to all municipal services and programs	<ul style="list-style-type: none"> Improvement of data required for growth to be included in Development Charge Study 2024 	\$50,000 (100% grant funded)
Fire Operations - Municipal Partnerships	2022-2023	Strat Plan 5 – Responsive Municipal Government	5.4 - Expand our partnerships	<ul style="list-style-type: none"> Report Management System - Computer Aided Dispatch integration - partnership with Strathroy Fire, Police and Dispatch Centre 	\$20,000 (100% grant funded)
Fire Services - Fire Underwriters Survey (FUS) Departmental Review	2023	Strat Plan 5 – Responsive Municipal Government	5.3 - Foster a culture of innovation, continuous improvement, and cost-effective service delivery	<ul style="list-style-type: none"> Five-year review by Fire Underwriters (FUS) and on completion, this organization provides an overall safety and efficiency rating for our municipality 	Completed in house

In addition to the strategic accomplishments outlined above, Middlesex Centre’s Fire & Emergency Services staff delivered a variety of services in 2023 including:

- Continuation of the Personal Protective Equipment (PPE) cyclical replacement program at \$38,000
- Non-capital equipment including medical supplies, portable radios, pagers, base radios upgrade program, ancillary equipment and the replacement of outdated tools in the amount of \$74,500.

- Completion of a department-wide Fire Underwriters Survey (FUS) readiness and response capability review
- Continuation with a green energy initiative by converting from gas power to battery-operated tools. This department-wide project currently is tracking at 100% complete.
- Ongoing cyclical training, enhanced officer development opportunities along with probationary firefighter and driver training, regulatory NFPA certification and tiered medical training.
- Fiscally responsible training partnership with Elgin County, Oneida First Nation and the Ontario Fire Marshal's Office
- Began the implementation of the Fire Plan Master and Community Risk Assessment, beginning with the Firefighter Wellness Program.
- Fire Marque revenue increase of \$19,404 over the 2022 value of \$12,749. The current 2023 recovered amount reached \$35,653.
- Continued delivery of a Fire Prevention and Investigation program in support of two neighboring municipalities producing an average revenue stream of approximately \$53,000 annually.
- Enhancement of the current fire Investigation team from one to five members to improve efficiency, divide on-call rotation and manage service levels.
- Engaging with neighbouring municipalities to develop service agreements for the delivery of special operations teams such as high-angle rope, ice/water and off-road rescue services.
- Refining and ongoing development of the fire report and asset management system along with a dispatch component in partnership with Strathroy Dispatch and Fire Services.
- Acquired three significant Fire & Emergency Services grants with the possibility of another to enhance and support multiple MCFS projects:
 - Project Assist which provided free training materials
 - Fire Marshall's Public Fire Safety Council Grant
 - Project Zero, which provided free smoke and carbon monoxide alarms for public distribution.
 - Community Emergency Preparedness Grant **Awaiting confirmation**

Partnerships

MCFS continued to strengthen partnerships with many neighbours and community stakeholders through our Mutual Aid Program, training opportunities and education.

Examples of such partnerships are with Fanshawe College Fire Prevention Program mentorship, OFM Regional Training Centre as well as Muscular Dystrophy fundraising. All have garnered huge benefits for all those involved.

In addition, our Fire Prevention program partnership continues to be an enormous benefit to three municipalities - making our communities safe while meeting legislated and provincially directed requirements.

Emergency Management

Emergency Management Program Committee (EMPC)

Middlesex Centre's EMPC has met the Emergency Management Ontario requirements prescribed under the *Emergency Management and Civil Protection Act* (EMCPA) for the Municipality's Emergency Management Program.

The EMCPA requires the Municipal EMPC to review, revise, develop and/or endorse the following at least annually:

- Community Hazard Identification and Risk Assessment (HIRA)
- General Community Hazards Assessment
- Hazard Information Sheets for each General Hazard
- Community Risk Profile
- Appendices to the Emergency Response Plan
- Critical Infrastructure Assessment
- Middlesex Centre Flood Emergency Response Plan

Emergency Management Training

In 2023 the Municipality's Emergency Control Group actively participated in an internal review and familiarization of the Emergency Response Plan and completed an annual tabletop exercise dubbed, "Tapped Out". This required exercise involved a large-scale water shortage!

Finally, 2023 also saw the addition of a corporate-wide program educating our staff as to actions in the event of an Active Intruder. This training was well received, and level 2 training will take place in 2024.

2023 Program Compliance Activities

EMPC Meeting – Completed
ERP Review – Completed
Annual Exercise – Completed
Middlesex Centre Flood Plan Review – Completed
Annual CCG Training – Completed

Financial Implications:

None

Strategic Plan:

This matter aligns with the following strategic priorities:

- Responsive Municipal Government
- Sustainable Infrastructure and Services

Fire Services' detailed annual report is provided in parallel to the Strategic Plan with the intent of maintaining good communication and ensuring transparency while providing competent and factual information.

Attachments:

FS-01-2024a Middlesex Centre Fire Services – 2023 Year-End Report Schedule A