



**Meeting Date:** January 11, 2023

**Submitted by:** Colin Toth, Director of Emergency Services

**Report No:** FS 01-2023

**Subject:** Middlesex Centre Fire Services 2022 Year – End Report

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**Recommendation:**

THAT Report FS 01-2023 entitled “Middlesex Centre Fire Services – 2022 Year-End Report” be received for information.

**Purpose:**

To update Council as to the 2022 year-end statistics relating to Fire Services. This report includes statistics for fire and emergency response, ongoing project status, new partnerships, grants, donations and the status of goals and objectives.

**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, ensuring transparency while providing competent and factual information.

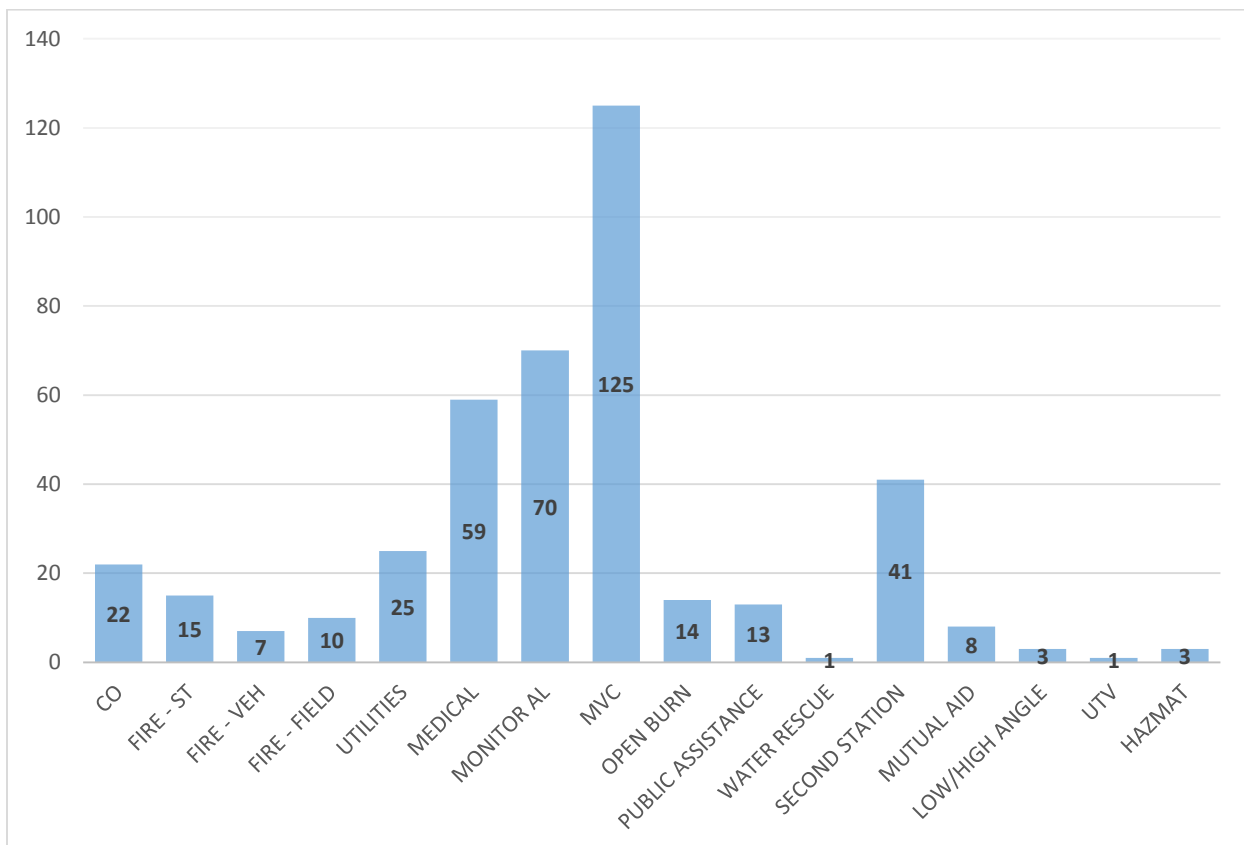
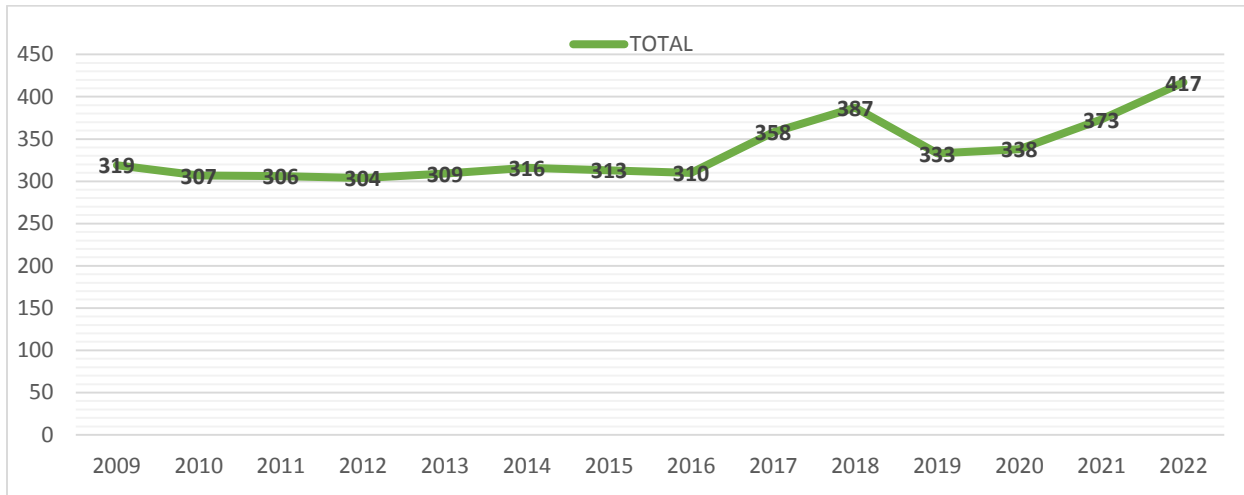
**Analysis:**

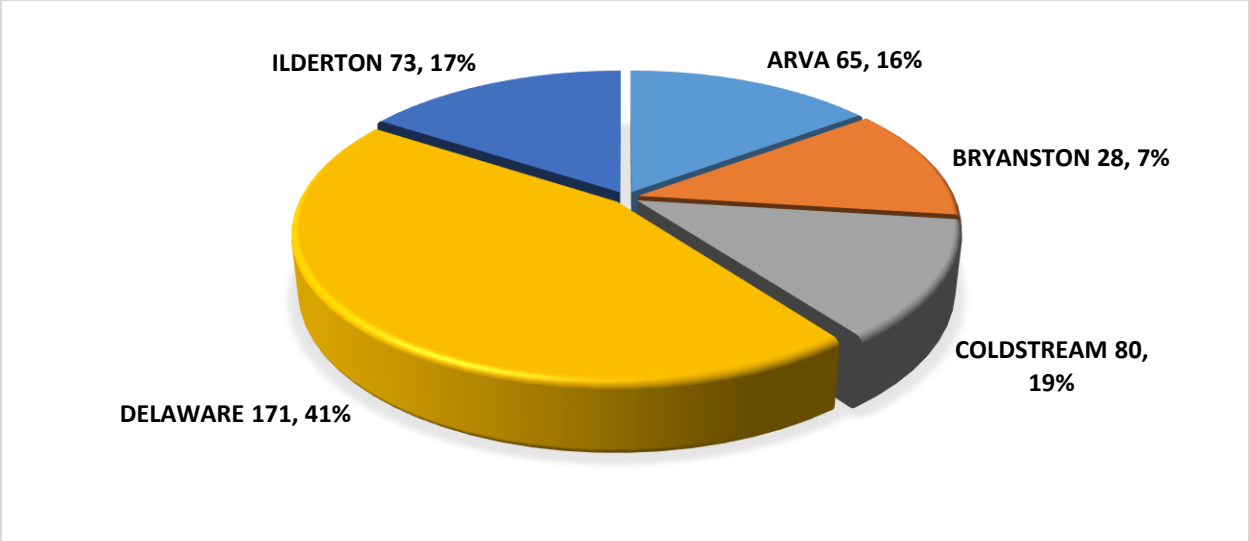
Department Incidents

In the 2022 fiscal year, Middlesex Centre Fire Services (MCFS) responded to **417** emergencies, as compared to **373** in 2021, **338** in 2020, and **333** in 2019.

Although total requests for assistance fluctuate month-over-month, year-end numbers demonstrate a continuous increase of approximately 10% over 2021. More importantly, an escalating trend is distinct ranging from 2019 to 2022. As in 2021, motor vehicle collisions (MVC's) continuing to be our highest response category.

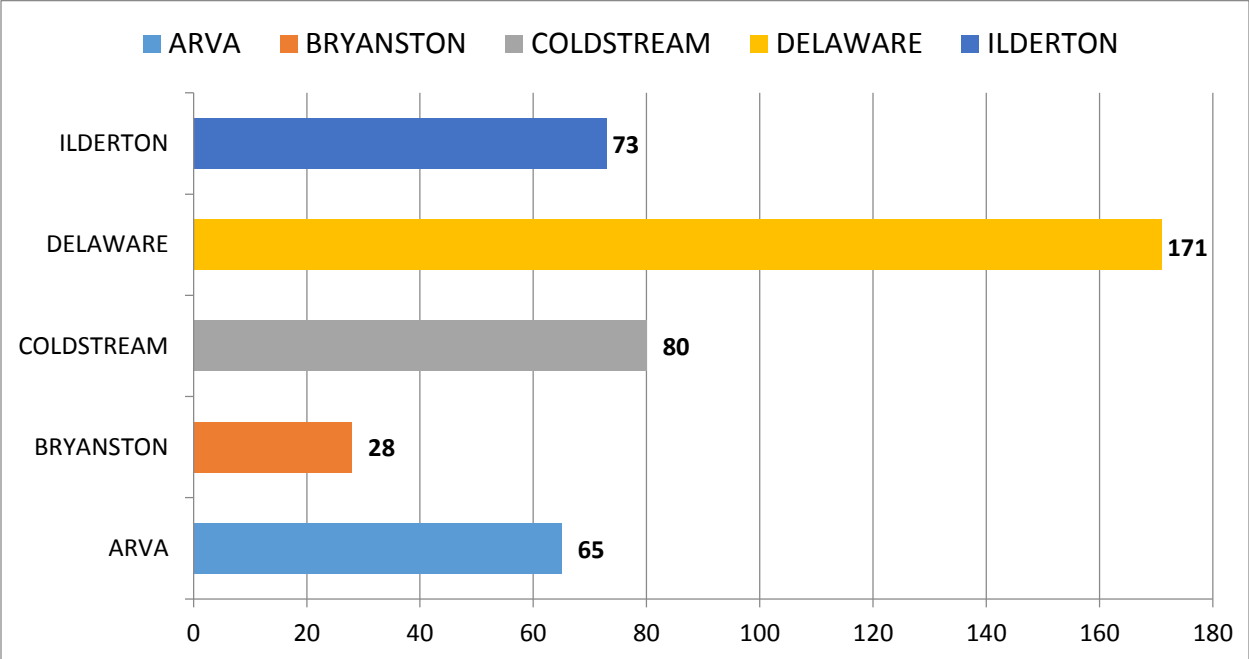
Below are three graphs representing response metrics from 2009 – 2022, specific response-type and the percentage of emergency responses based on station geographically area.





Individual Station Response

As total response numbers for 2022 being **417**, individual stations numbers resulted with Arva answering to **65** incidents, Bryanston to **28**, Coldstream to **80**, Delaware **171** and Ilderton to **73**.

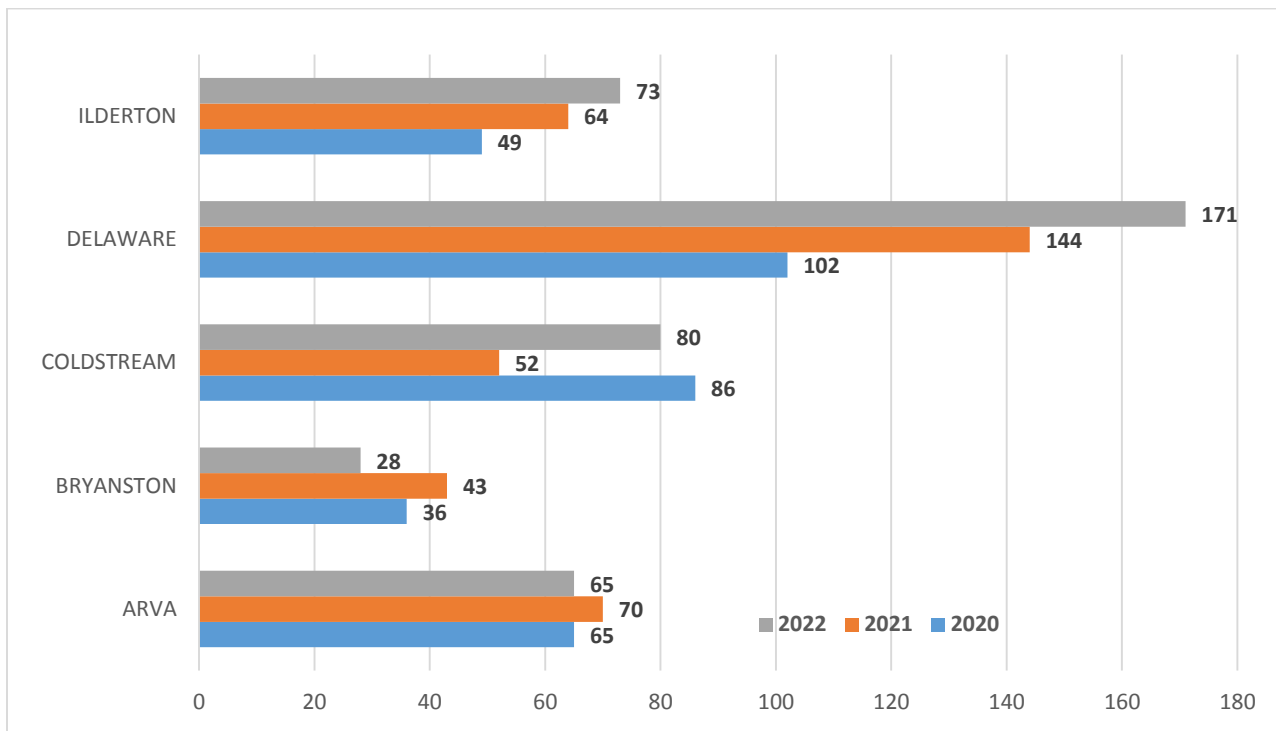


*Additional station response charts attached to this report as “Schedule A”.*

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 deem necessary in the judgement of the Incident Commander)

In 2022, MCFS provided second station support as follows: Arva assisted with **17** incidents, Bryanston **3**, Coldstream **8**, Delaware **3**, and Ilderton **10**. (**41** second station responses overall)

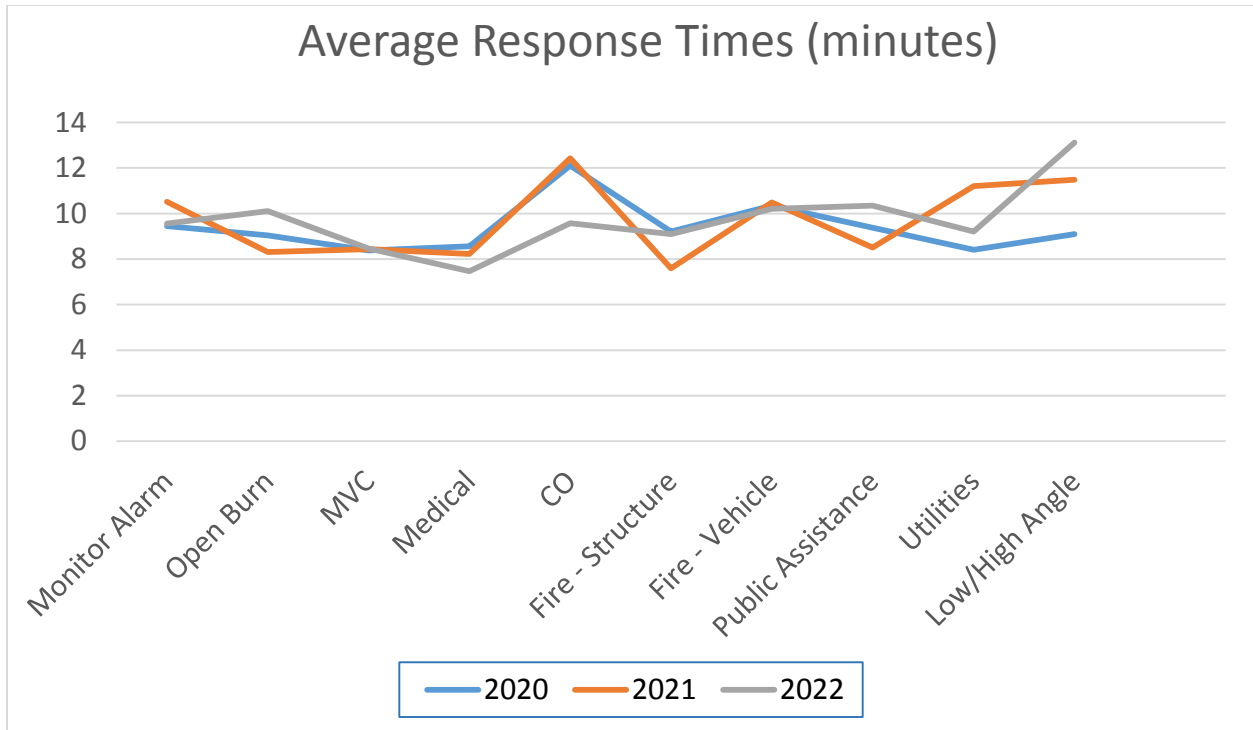
The chart below provides a three-year emergency response comparison for all stations, responding as primary and secondary support stations.



### Response Times

Overall response times are measured when the firefighters receive the emergency page until the first apparatus arrives on scene. These times are dependent on the availability and proximity of firefighters to their stations and their distance from the station to the incident.

The average 2022 response time for all incidents for MCFS stations was **9 minutes and 7 seconds**. In 2021, this number was **10** minutes as compared to **9 minutes 10 seconds** in 2020 (with the exception of second station and mutual aid responses).

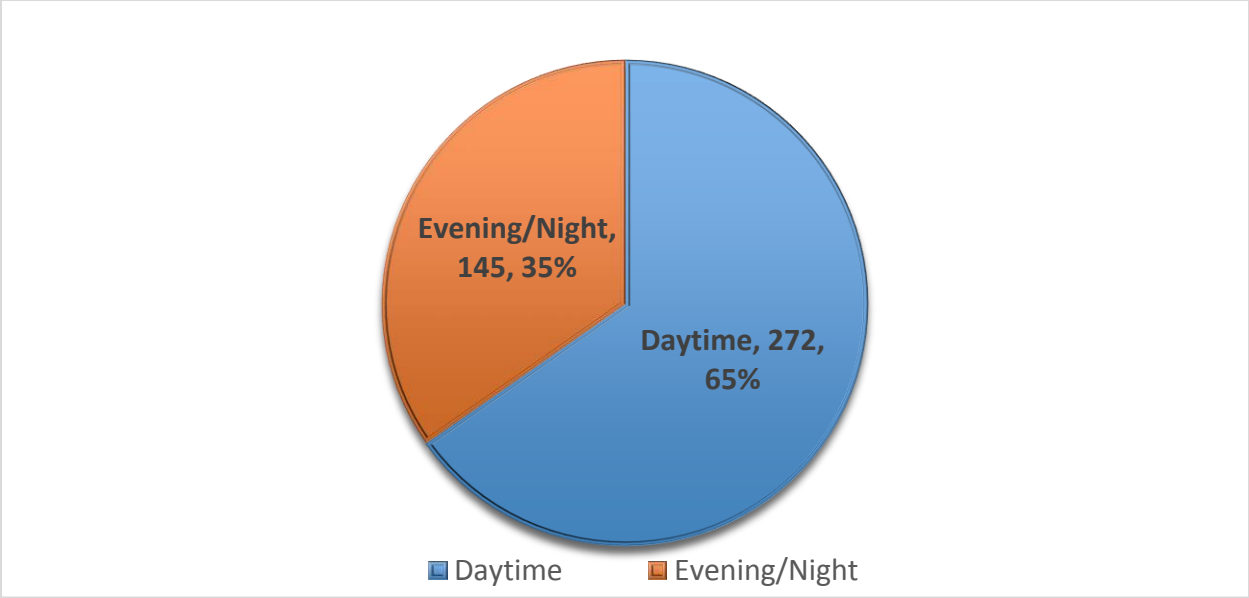


The Department averaged **11** firefighters per incident in 2022 compared to **10** in 2021 and **13** in 2020. This average takes into account all types of incidents such as medical response, fires, MVC's, open-air burning complaints, and other incidents (with the exception of CO, second station and 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 such as MCFS 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. As can be observed, the majority of calls answered in 2022 are during daytime hours. This is primarily the most difficult time for MCFS firefighters to respond due to geographical employment situations or simply not being in a position to respond in a timely manner.



**Fire Loss Statistics**

In 2022, the estimated dollar loss of fire events was approximately \$1.58 Million as compared to \$6.8 Million in 2021, \$2.8 million in 2020, and \$549,000 Million in 2019. This decrease can be attributed, in part, to a decrease in larger scale structure fires however, this can also be attached to the type of structure involved.

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.



## **Fire Prevention Inspections and Investigations**

As a recap, in the fall of 2019, the County of Middlesex disbanded the provision of fire prevention and investigative services to all lower-tier County municipalities. Having designed a defensible program, in September of 2019 the Municipality of Middlesex Centre entered into a service agreement with the Municipality of North Middlesex. This service agreement delivers fire prevention inspections, some components of public education and fire investigations. MCFS hired a full-time Fire Prevention Officer (FPO) in order to fulfill the needs of the program. In early 2020, the program scope was expanded to include the Municipality of Thames Centre.

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

The annual inspection schedule covers all of the 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 will be further enhanced and implemented in 2022.

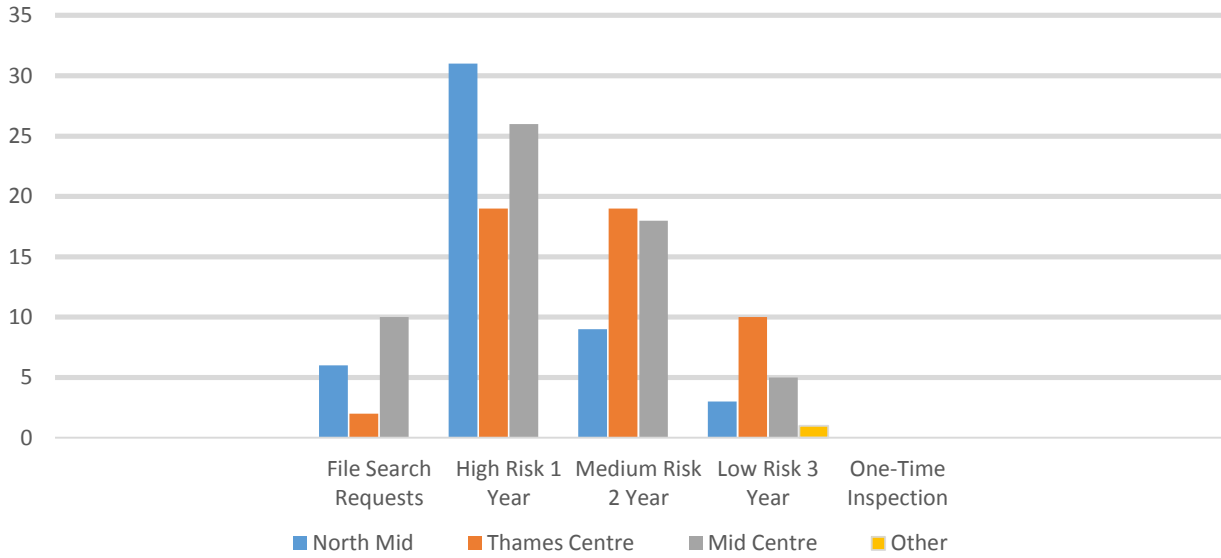
Due to the pandemic of 2020/21, the effects of business closures, lockdowns and the scaling of operations, had a severe impact on the inspection cycle. 2022 saw MCFS being able to complete up to 90% of all inspectable properties.

MCFS Fire Prevention conducted **278** fire inspections throughout our three serviced Municipalities. (Compared to 232 in 2021) The following types of occupancies were inspected:

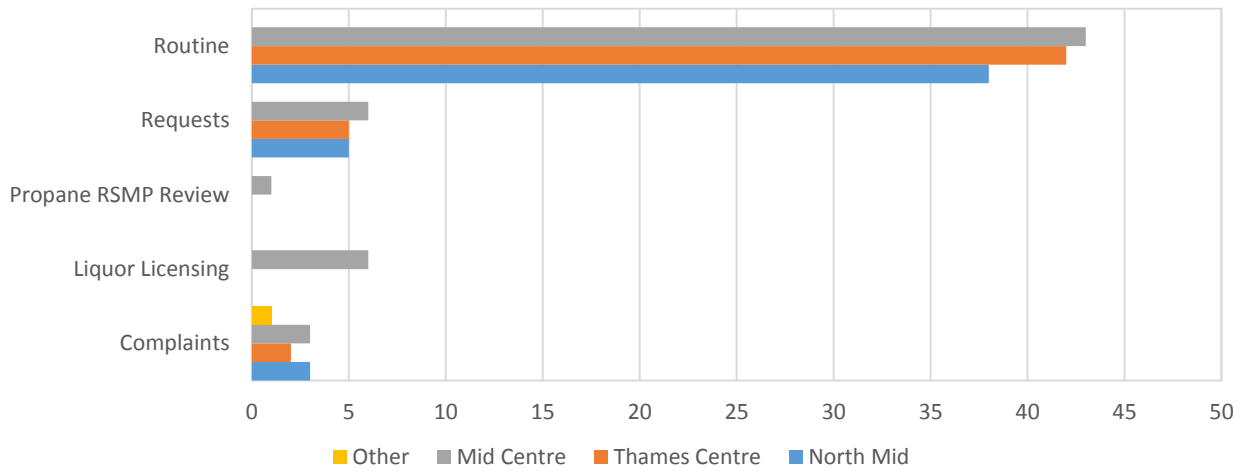
- Assembly (High Risk)
- Industrial (High to Medium Risk)
- Institutional – Vulnerable Occupancies (High Risk)
- Business and Personal Services (Low Risk)
- Residential (High to Medium Risk)
- Mercantile (Low Risk)

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 2022 the Fire Prevention Division investigated **8** fires in Middlesex Centre, **4** in North Middlesex, **3** in Thames Centre and **1** classified as “Other”, totalling **16**. For comparison, in 2021, **11** investigations were conducted in Middlesex Centre, **3** in North Middlesex, **3** in Thames Centre and **3** classified as “Other” for a total of **20**.

### Fire Inspections by Risk Level - 2022

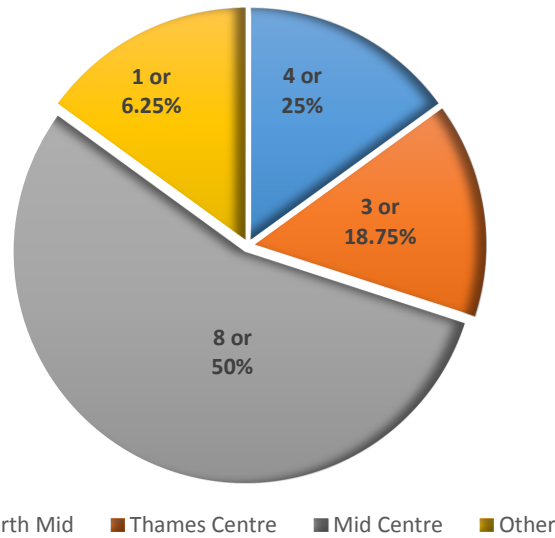


### Fire Inspections by Type - 2022





## Fire Investigations - 2022



## Fire Service Revenue and Costs

### Motor Vehicle Responses

In 2022, Fire Services invoiced non-residents of Middlesex Centre a total of **\$69,000** due to Motor Vehicle Collision's. This figure has decreased from the 2021 value of **\$106,674.47** based on severity of the incident, the degree of MCFS involvement, and an increase of those involved being local. At the time of this report, approximately \$30,000 has yet to be invoiced.

### Asset Liquidation

Based on tool upgrading projects in 2022, various pieces of outdate equipment were liquidated to recoup revenue back into Fire Services reserves. In 2022, liquidated assets amounted to approximately **\$2,086.44**.

### Grants and Donation Opportunities

Through the year, various grant opportunities were explored with many successfully achieved, totalling **\$84,673**. These include:

- Provincial Modernization Grant in the amount of **\$25,000**,
- Fire Marshal's Public Fire Safety Council (FMPFSC) **\$4,673**,
- Enbridge "Project Assist" initiative for **\$5,000** and;

- Provincial Modernization Grant for our Master Fire Plan for **\$50,000**

### 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 dependant on the number of fires attended by MCFS over the course of a year.

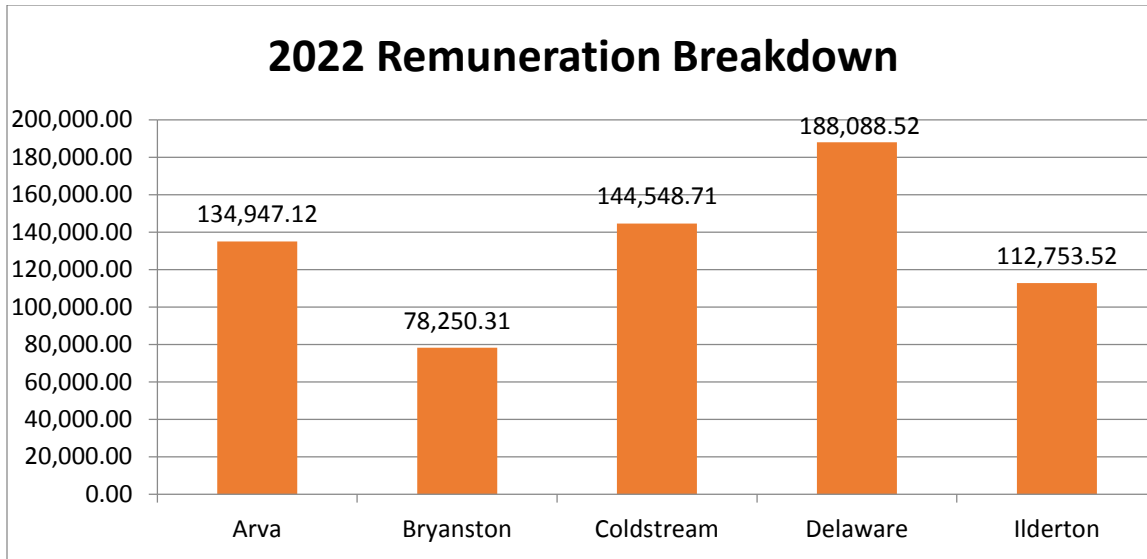
In **2022**, Fire Marque was able to recover **\$12,749.24** as compared to **\$50,627.55** for **2021**. It is important to understand that Fire Marque provides the majority of remuneration at the end of each calendar year. Many ongoing claims are held depending on file status. Therefore, some years the Municipality will see a “spike” in funds received. Fire Marque funds are utilized in a number of 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 **2022**, the Municipality received **\$1,137** for incident response reports requests and **\$600** being collected for fireworks permits.

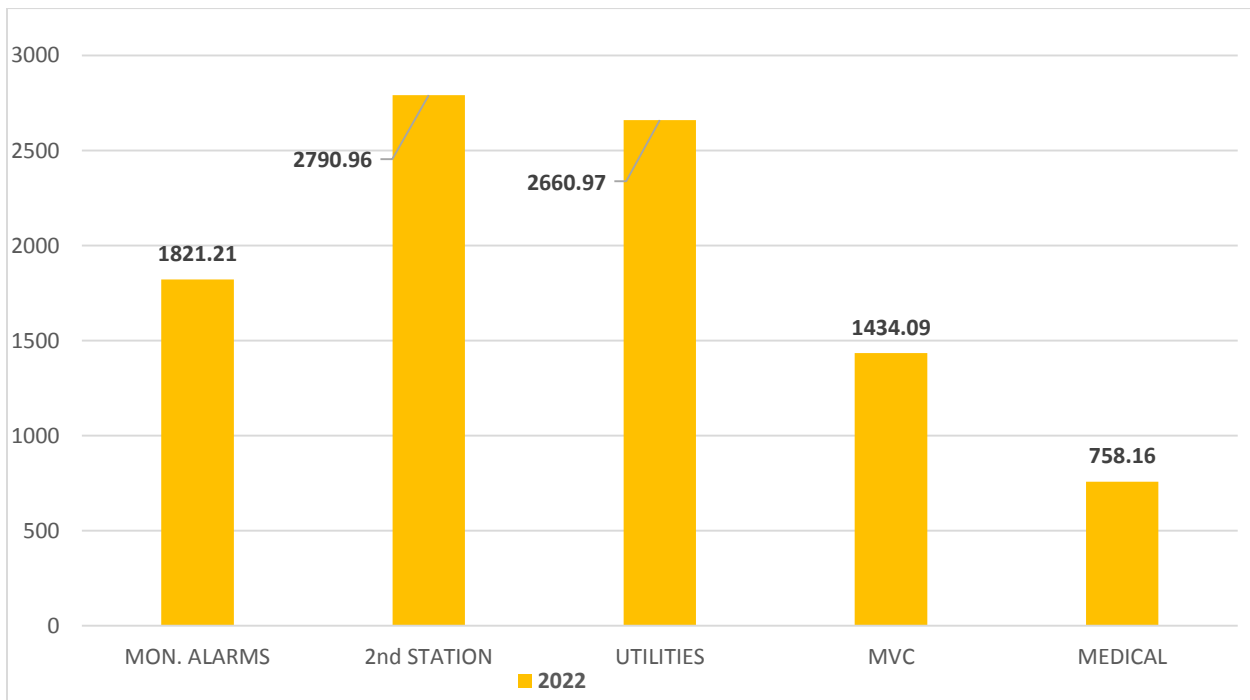
### Firefighter Payroll

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 2022. Note that the municipality is undertaking an organization-wide compensation and job review in 2023.



### Specific Incident Response Costs

Below is a cost breakdown for specific response types based on MCFS' "Top Five".



## **Training, Recruiting, Retirements and Officer Development**

### **Standardized Training - Disciplines – Core Content Focus**

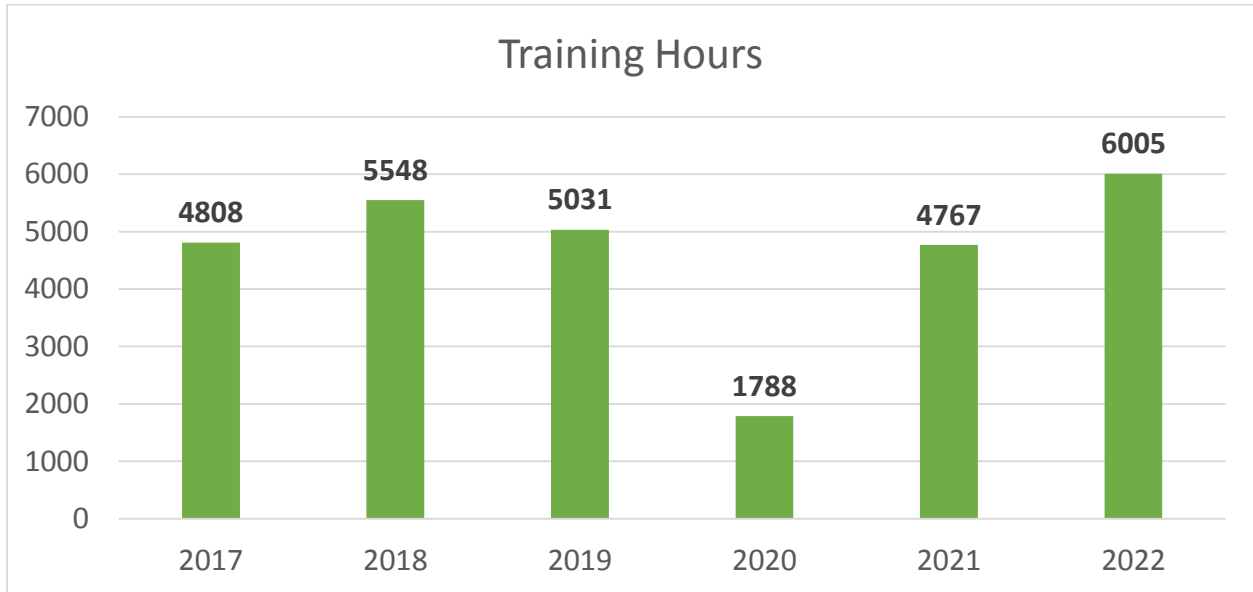
2022 saw many changes and challenges to our training certification program with the passing of O. Reg 343/22 – Firefighter Certification. This new regulation dispels all doubt as to certification requirements, options to comply and reasoning and benefits of compliance. For MCFS, this means a minimal upfront training commitment simply based on past certification grandfathering, but does mean additional monitoring, tracking and documentation on the back end to ensure compliance is maintained.

Continuing with our training program merger with Elgin County resulting in the development of a Regional Training Centre (RTC) under the purview of the Office of the Fire Marshal, affords us access to additional certification courses, resources and training opportunities.

Refer to our internal training curriculum – through the course of a year, the training division consisting of a Chief Training Officer and five Training Officers, develop, deliver and document a schedule of standardized training evolutions based on the new certification regulation. The graph below depicts the combined training hours for 2022 along with the standardized evolution 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 objectives include providing team expertise and support in collaboration with neighbouring municipalities.

The Department presently has eleven (11) firefighters trained in water rescue techniques with twelve (12) trained in high angle rescue.

### Paid On-Call Professional Firefighter Recruitment

Continuing into 2022 was MCFS' redesigned recruitment program that creates a cost effective, streamlined, and defensible process in order to meet corporate and industry accepted recruiting practices. The 2022 recruitment resulted in **74** applications submitted for review. **28** candidates were interviewed with **18** being offered positions.

Two applicants were subsequently placed onto our reserve list with one being offered a position after-the-fact.

### Firefighter Retirements and Resignations

2022 saw the retirement of **2** senior firefighters – one from Delaware station and one from Ilderton. In total, we had **7** resignations with **4** firefighters proceeded to explore careers within full-time fire departments. Of those **4**, **3** remain employed with MCFS.

The current compliment of MCFS sits at 117, including headquarters staff.

### Staff Development, Training and Succession Planning

MCFS will continue to move forward with our training program thru our new RTC as well as with our internal “Recruit to Officer” training program, which includes a variety of new offerings and opportunities for 2022. Some of these new opportunities include: NFPA 1521 Incident Safety Officer, 1002 Apparatus Operator, 1041 Fire Service Instructor and 1033 Fire Investigator. (All of which are offered as blended program opportunities)

An example of continued staff development and training is our Fire Officer and Instructor programs modeled after NFPA 1021 and 1041 Level 1 standards. This was key in 2022 and will be available to those positioned for promotion as part of the succession and advancement initiative.

As well, two of our senior Officers have enrolled in the corporate management program thru 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 standards and new certification standards.

**As a note, MCFS is one of few Fire Departments across Ontario who can boast a continued 100-percent NFPA staff certification level!**

### 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 substantially reduced cost (this license is required to operate the majority of MCFS fire apparatus). In 2022, through this Ministry of Transportation approved Driver Certification Program, **6** firefighters attended and received their “D” license and “Z” endorsement. Due to the overwhelming success, plans to integrate this program into the core firefighter-training curriculum offered through our RTC is planned for 2023.

## **Department Projects, Initiatives and Partnerships**

### **Projects and Initiatives**

In 2022, a number of new projects began, many were completed with others outstanding primarily based on their nature.

MCFS continues to streamline the provision of fire inspection and investigative services to our partners while enhancing the overall prevention program in many aspects.

The continuation and implementation of our report management system (RMS) in support of the department is nearing completion. One operationally interesting piece is the integration and network “push” of information from our dispatch centre directly to the tablets in our vehicles. This cloud-based software solution puts response criteria onto the firefighter’s fingertips assisting with pre-planning while enroute. Subsequently, during the incident report-writing phase, pre-populated information saves substantial time which alleviates frustration and any room for error.

Replacing aging extrication equipment with new generation battery–operated units continue with the outfitting of Delaware and Arva stations. As well, stepping up timelines to replace aging gas operated saws opting for equivalent battery-operated counterparts has taken place.

Continuance and enhancement of our post-traumatic stress disorder (PTSD) program in the way of adding blended training programs proved very successful. One such course was the “Before Operational Stress – BOS” course as provided thru the Office of the Fire Marshal.

2022 demonstrated another successful recruiting period, adding many positions to our ranks from Firefighters to promotions of Officers – maintaining our departmental complement at 117.

As cause of the pandemic, we continued to capitalize on the “remote” public education utilizing our 2021 grant acquired audio/video equipment. Although refining these processes needs to take place, initial trials prove to be exciting and effective.

Emergency Management opportunities arose, which allowed for continued redesign and modernization of our Municipal Emergency Management Program and in particular, the Emergency Response Plan.

Addition of a corporate-wide program educating our staff as to actions to take in the event of an Active Intruder, was well received and will continue into 2023.

Administration has streamlined various internal processes and has capitalized on the utilization of new third party “collections” opportunities to recoup outstanding invoicing as well as the updating and modernizing of our Standard Operating Guidelines.

Continuation of the Personal Protective Equipment (PPE) cyclical replacement program and non-capital equipment including medical supplies, portable radios, pagers, base radios, ancillary equipment and the replacement of outdated tools.

Finally, 2022 was met with the five-year Fire Underwriters Survey (FUS) review and Master Fire Plan review(s) along with training to meet legislated Community Risk Assessment report development timelines.

### Partnerships

MCFS continued strengthening 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 as well as Muscular Dystrophy fund raising. Both have seen huge benefits for all those involved.

Finally, 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 2022 the Municipality's Emergency Control Group actively participated in internal review and familiarization of the Emergency Response Plan and completed an annual tabletop exercise involving an IT/information attack!

## 2022 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, ensuring transparency while providing competent and factual information.

## **Attachments:**

Middlesex Centre Fire Services 2022 Year – End Report “Schedule A”