



**Meeting Date:** January 20, 2021

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

**Report No:** FS 01-2021

**Subject:** Middlesex Centre Fire Services – 2020 Year - End Report

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**Recommendation:**

THAT Report FS 01-2021 entitled “Middlesex Centre Fire Services – 2020 Year-End Report” be received.

**Purpose:**

To update Council as to 2020 year-end statistics pertaining to fire and emergency response, ongoing project status, new partnerships, grants, donations and the status of upcoming goals and objectives.

**Background:**

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

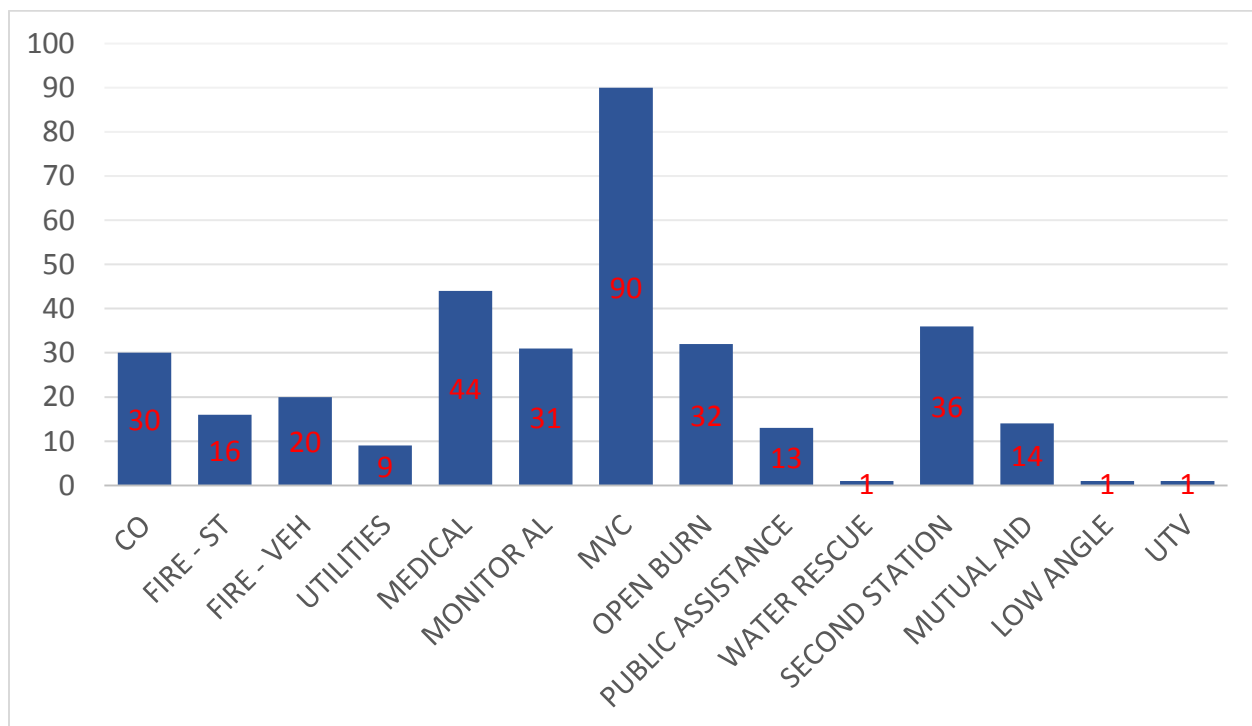
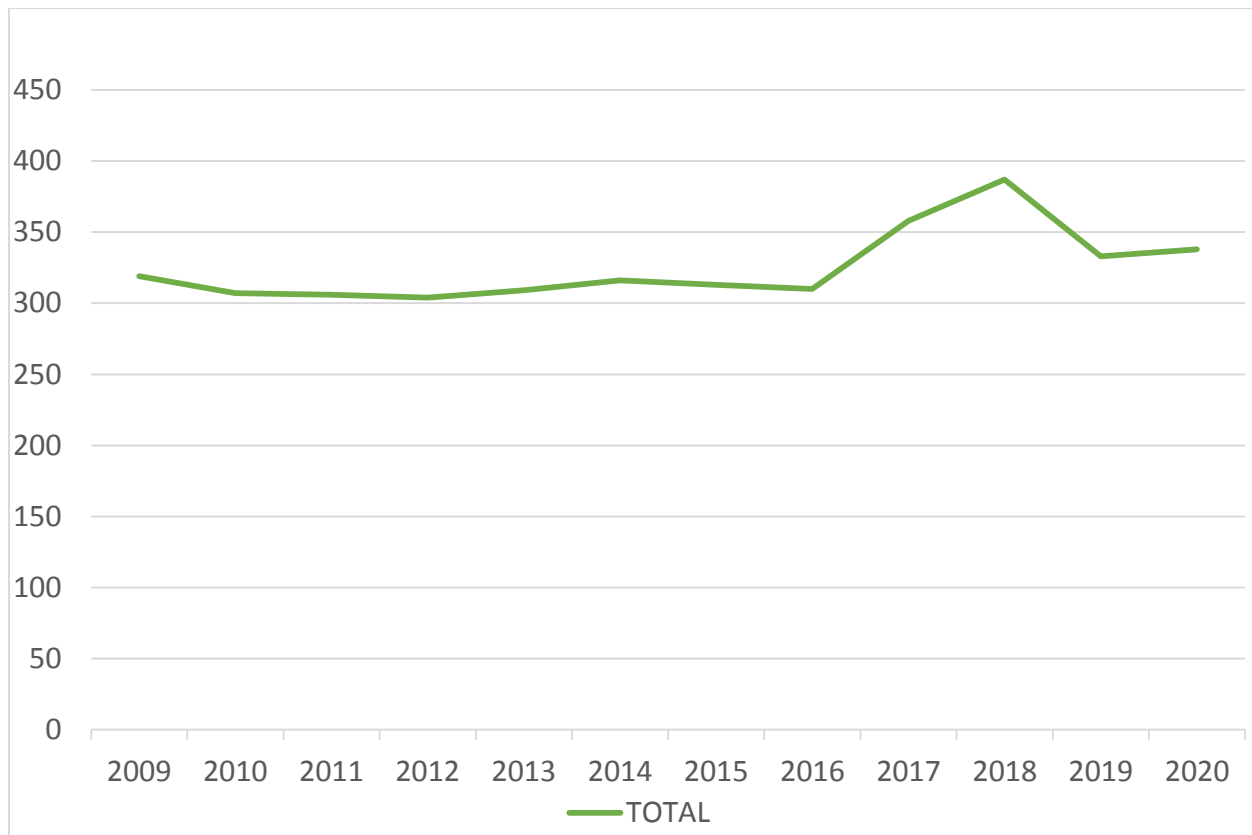
**Analysis:**

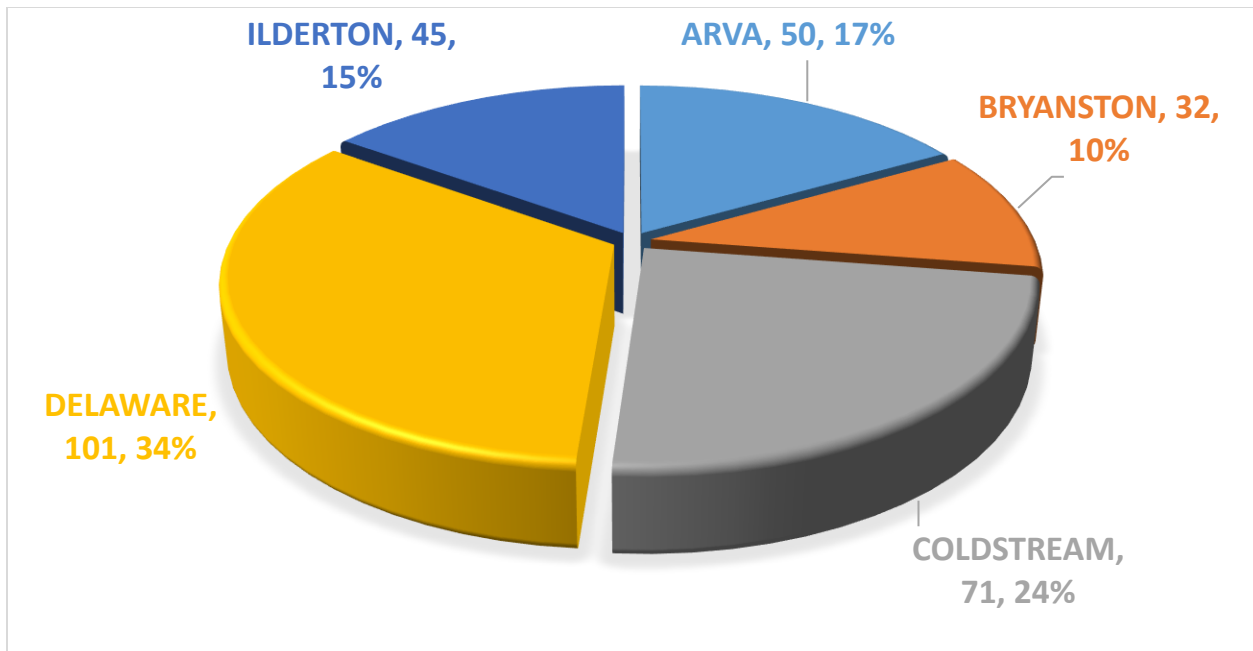
Department Incidents

In the 2020 fiscal year, Middlesex Centre Fire Services (MCFS) responded to **338** emergency incidents/responses, as compared to **333** in 2019, and **387** in 2018.

Although the trend in total calls had declined at the start of 2020, numbers balanced in comparison to 2019 with motor vehicle collisions continuing to be our highest alarm response category. As a note, vehicle collisions are a difficult area to target with public education strategies as the majority of these calls involve non-local individuals traveling through our community. The miniscule call decrease observed over 2019 could potentially be due to our current COVID environment, however this is a difficult variable to quantify.

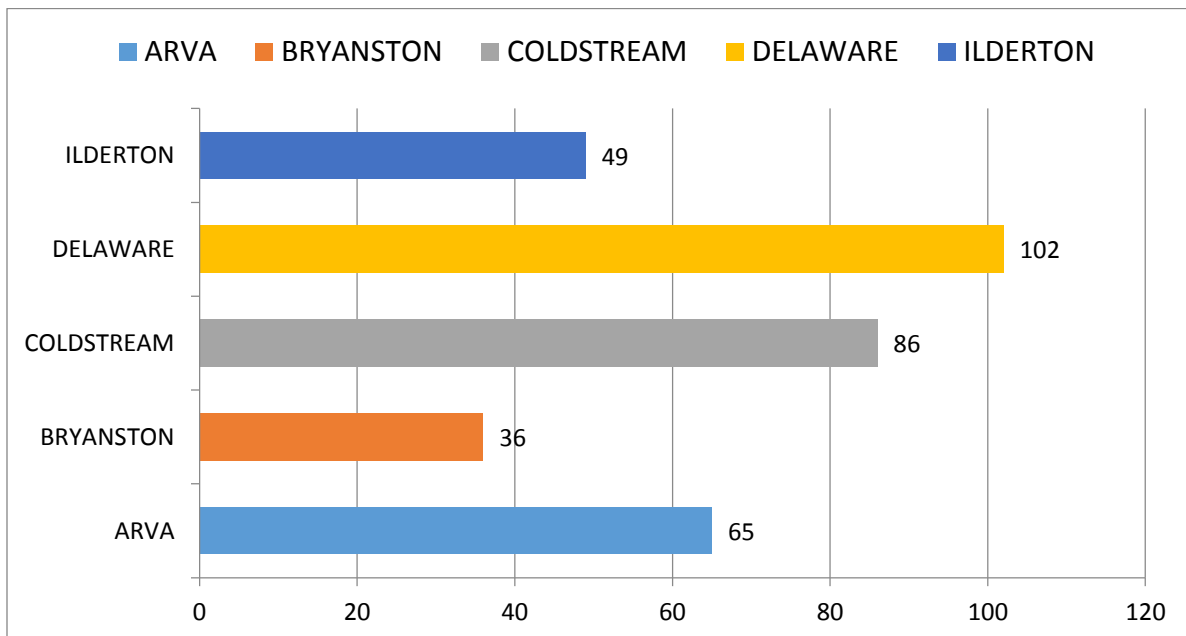
Below are graphs representing MCFS response by year, specific type and percentage of calls based on geographically response area.





### Station Response

All inclusive, Individual station responses resulted with Arva answering to **65** incidents, Bryanston **36**, Coldstream **86**, Delaware **102**, and Ilderton to **49**. (338 incidents in total)

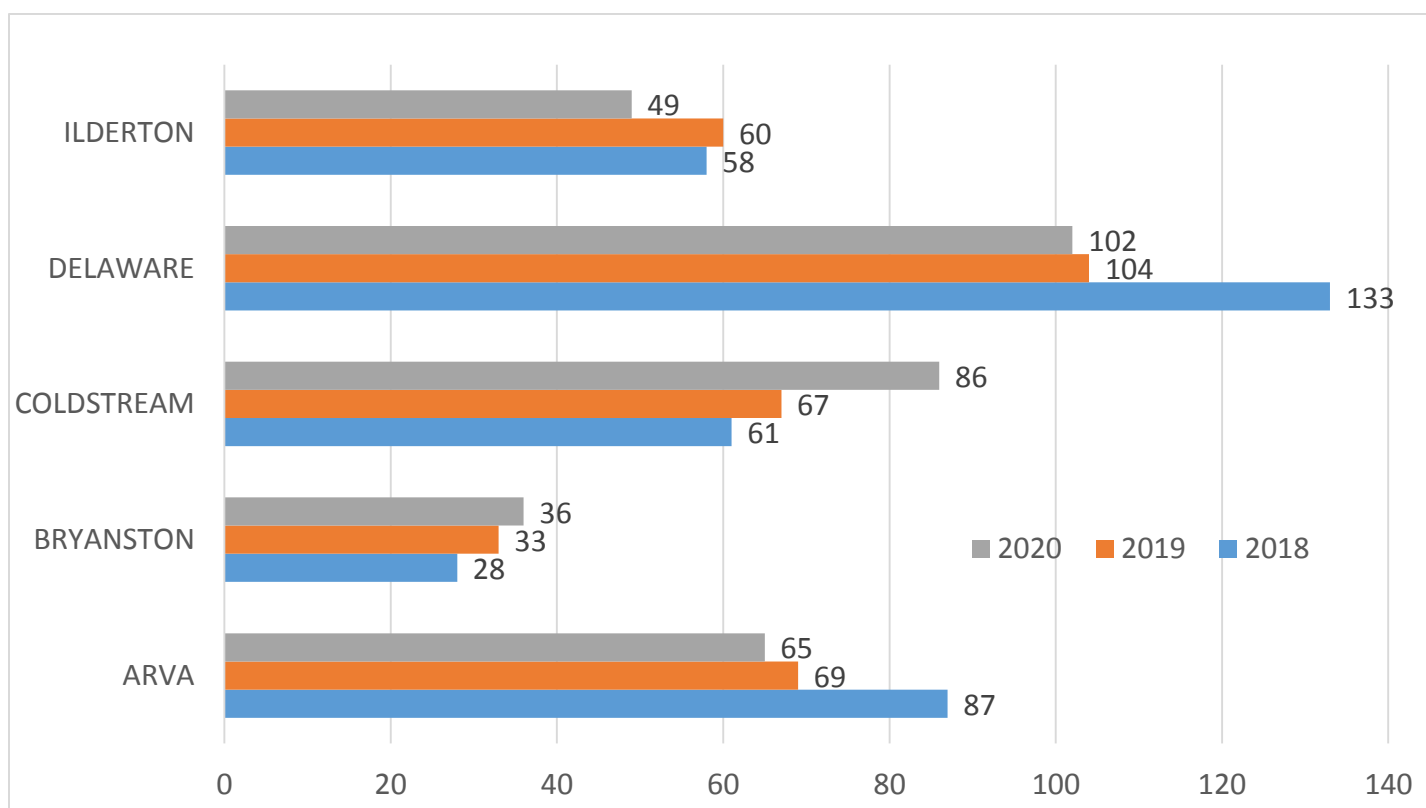


***Additional station response charts attached to this report as Appendix "A".***

Department protocol requires response support from an additional station, dependent 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 in the judgement of the Incident Commander)

In 2020, MCFS stations provided internal “second station” support as follows in comparison to 2019: Arva assisted with **15** incidents, (**neutral at 15**) Bryanston **4**, (**up from 0**), Coldstream **16**, (**up from 4**) Delaware **1**, (**up from 0**) and Ilderton **3**, (**neutral at 3**) (39 second station response incidents in total)

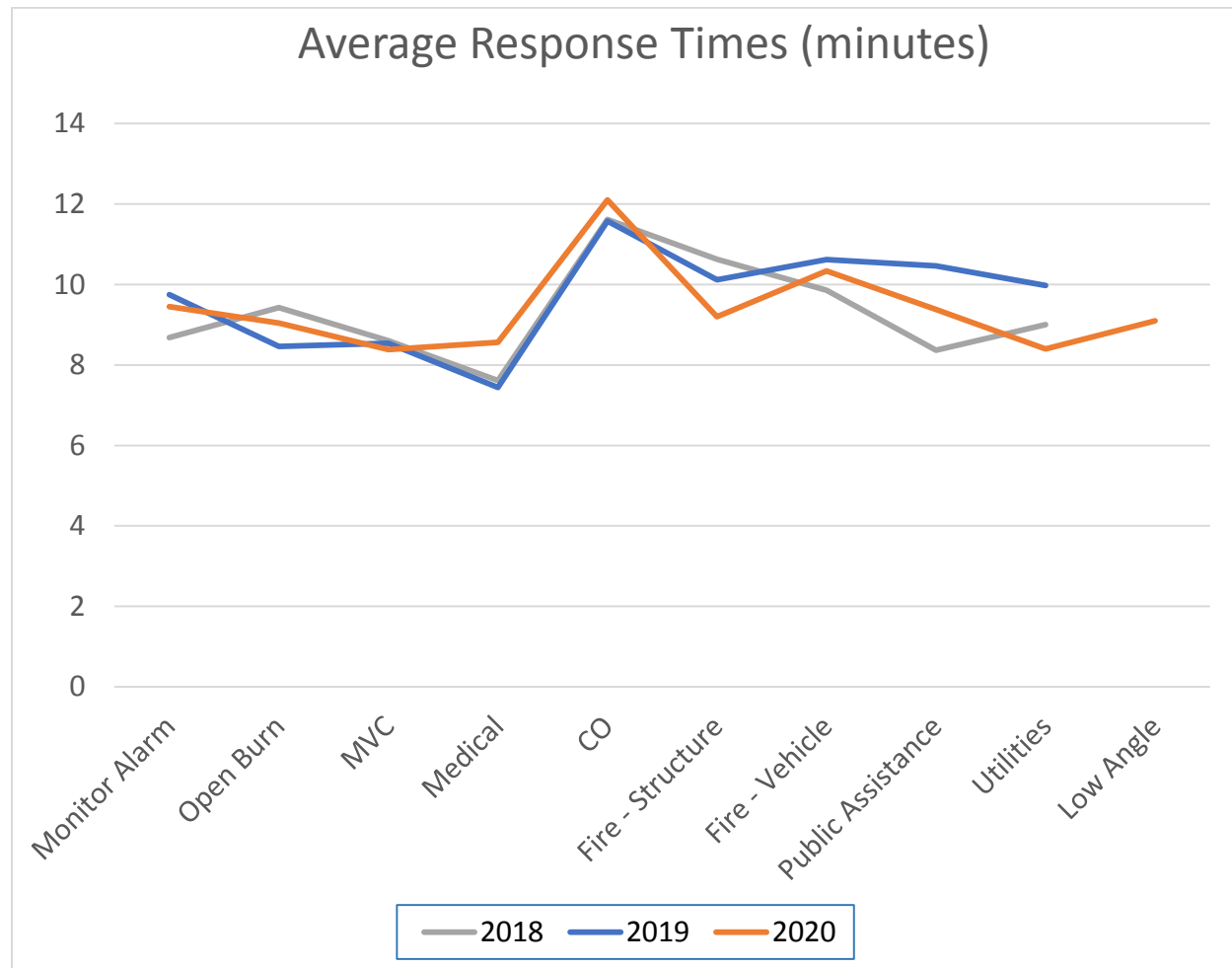
The MCFS chart below provides a three-year emergency response comparison for all 5 stations; responding as primary and secondary support stations.



### Response Times

Overall response times are measured as the time 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, time of day, as well as the distance of the incident from the station.

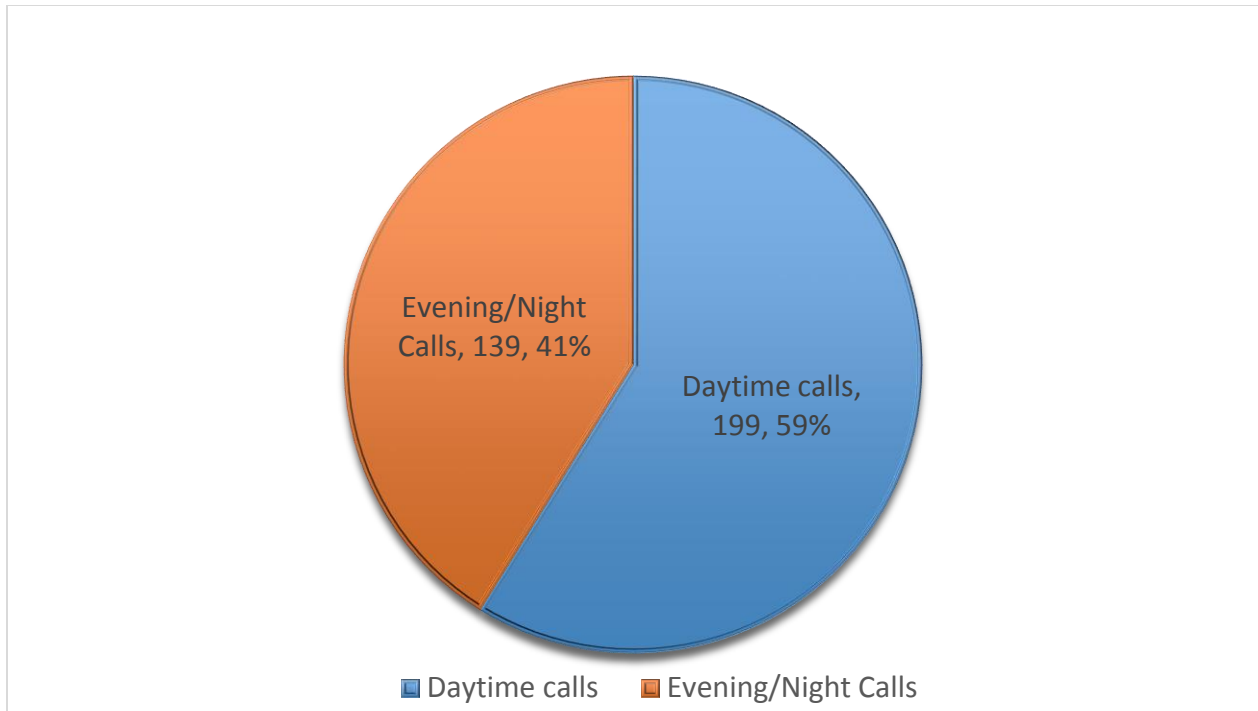
The average response time for incidents in 2020 was approximately **9 minutes 10 seconds** as compared to **9 minutes 56 seconds** in 2019. (With the exception of second station and mutual aid responses)



The Department averaged **13 firefighters per incident** in 2020 up from 11 in 2019. This average takes into account all types of incidents, including medicals, fires, MVC's, open air burning complaints, and "other" incidents. (With the exception of second station and mutual aid responses)

### Response by Time of Day

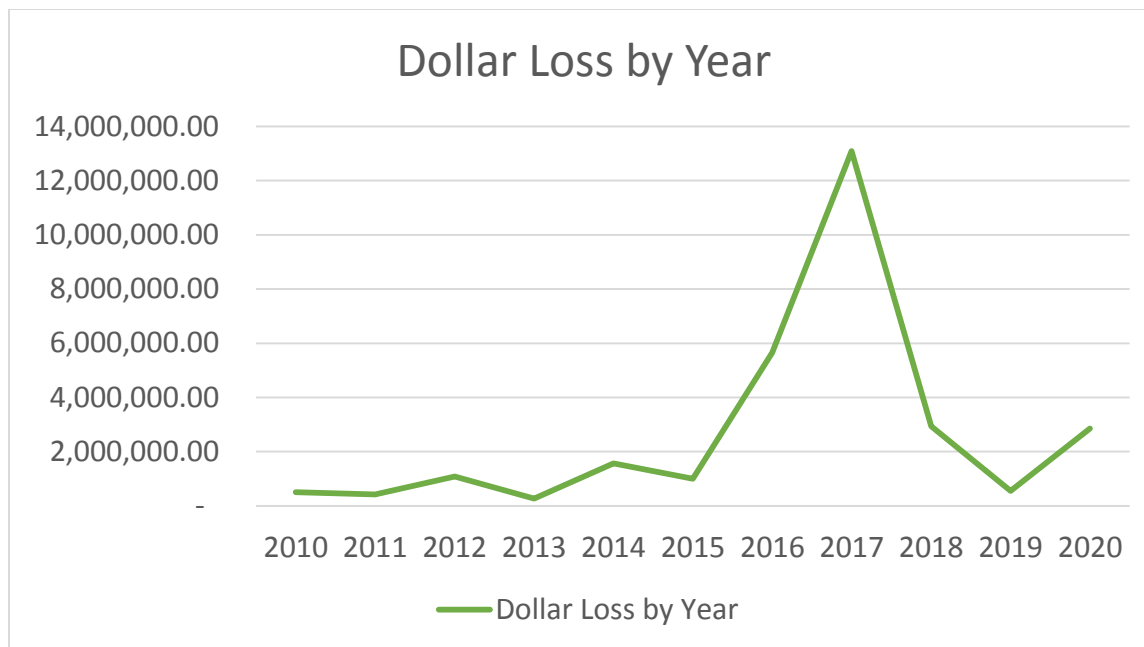
Being cognizant of when calls are taking place is imperative to operational readiness. This also allows for pre-planning in order to ensure proper staffing, coverage, second station assistance, mutual and automatic aid fulfilment and to ensure that service levels are being maintained. Below is a chart which defines daytime calls and night time calls in number and percentage format.



### Fire Loss Statistics

In 2020, the estimated dollar loss as a result of fire was approximately \$2.8 million as compared to the 2019 figure of \$549,000 and \$2.9 million in 2018. The large increase in dollar loss over 2019 can be directly attributed to an increase in the number of “residential” structure fires. In comparison, the 2018 value was devoid of the number of “residential” fires attended, but rather included large agricultural events.

**It is also important to note that dollar loss statistics are based on an estimate of contents and property replacement values using industry standards and interviews w/ property owners. These determinations are arrived at by the Office of the Fire Marshal (OFM) and/or local Investigators. These metrics cannot be completely realized for apparent reasons.**



## Fire Prevention, Education and Investigation

### Public Education

Fire Prevention is, and continues to be the forefront of the Ontario Fire Marshals' "Three Lines of Defence" strategy pertaining to fire safety in Ontario.

**Line One: Public fire safety and education**

**Line Two: Fire safety inspections, standards and enforcement**

**Line Three: Emergency response**

In 2020, MCFS continued to restructure goals and objectives in order to focus on specific risk areas, age groups and demographics while lending attention to teaching styles in order to increase effectiveness. All while aligning with the Office of the Fire Marshal directed "three lines of defence" strategy. From this restructuring, comes the ability to measure effectiveness as to programs curriculums.

2020 was challenging for our public education program, however staff continued to work with other internal departments to provide safety messages to the public. One integral piece to this stratagem was to utilize and enhance our social media campaign which involved the re-issuing of our green light and job-specific video(s). These videos clarify the purpose of green lights as seen on roadways with the other showcasing the dedication of our firefighters - touting a high level of service delivery. This continues to bolster support for our Fire Services, building confidence in our abilities and trustworthiness by those we serve. The videos are also on the municipal website for ease of access.

Despite the 2020 COVID slowdown, Fire Prevention Staff conducted a variety of “smart”, remote public education activities which led to the strengthening of existing partnerships and saw the construction of many new ones with local entities including Fanshawe College.

At MCFS, the programs currently being undertaken annual are listed below and are inclusive of but not limited to:

- Video & social media campaign – includes: CO awareness, fire prevention month, holiday safety
- Fire Prevention Month Activities (Social media campaign, Twitter & Facebook)
- Grade 1 Sparky Backpack Fire Prevention Program
- Grade 3 Fire Prevention Program
- Grade 7 Emergency Preparedness
- London Farm Show – Barn Fire Prevention Booth
- Smoke and CO Alarm Door to Door Campaign – spring and fall awareness campaign
- Marketing and messaging public services announcements (PSA's) flyers/brochures distributed via tax and other mail correspondence
- Risk Watch Teacher Training & support to classrooms
- What's Cooking for Teens Program, Fire Prevention for High School Students
- Open Air Burning Campaign
- RACE Against Drugs
- Requested classroom presentations and discussions with local senior's groups
- Fire Extinguisher Training – provided by Middlesex County Fire Prevention
- SARI – summer day camp with fire safety education each week
- Annual truck-pull event with our local YMCA
- Touch-a-Truck event and;
- Numerous other beneficial Firefighter and Association-led events which include station tours, open houses, and community car washes

### Fire Safety Inspections

As a recap, in the fall of 2019, the County of Middlesex disbanded the program which provided fire prevention and investigative services to lower-tier municipalities in Middlesex County. Designing a skilled and defensible program, the Municipality of Middlesex Centre entered into a service agreement with the Municipality of North Middlesex in September of 2019. This service agreement entails support in the way of fire prevention inspections, public education and fire investigations. Concurrently, MCFS hired a full-time Fire Prevention Officer (FPO) in order to fulfill the needs of both Middlesex Centre and North Middlesex. In early 2020, we expanded the program to include Thames Centre!

The FPO's specific duties include but are not limited to: being responsible for fire safety inspections including complaints and requests, maintaining the cyclical risk-based inspection program, components of fire safety training, bylaw- specific enforcement,



aiding in public education delivery, courtroom/legal action as required and conducting and documenting of all fire investigations.

In order to successfully implement the first and second line of the OFM's three lines of defense, complaint, request and routine inspections must be completed along with components of public education. Fire inspections ensure that buildings are maintained in accordance with the Fire Code consistently across our communities and public education ensure our residents remain fire safe in their homes. In December of 2019, the Fire Prevention Officer began developing a routine inspection schedule covering all of the inspectable properties in all serviced Municipalities and prioritizing them based on type and risk. (Utilizing industry best practices and subsequent standards) The schedule will continue to be developed and further implemented moving into 2021.

Due to COVID-19, the effects on business closures, lockdowns and the scaling of operations, affected inspection schedules significantly. Inspections by hazard and high-risk were priority and completed on schedule, however other non-essential or lower risk inspections were ranked and completed if the opportunity presented.

MCFS Fire Prevention conducted **174** fire inspections throughout our 3 serviced Municipalities. These include complaints, requests and re-inspections. The following types of structures/facilities were inspected:

- Assembly
- Industrial
- Institutional (Including Vulnerable Occupancies)
- Business and Personal Services
- Residential
- Mercantile

### Fire Investigations

Another vital component of services provided to our supported Municipalities come in the way of Fire Investigations. These investigations are time consuming and detailed, in-part due to the potential liability and exposure to Municipalities. Fire prevention staff investigated **7** fires in Middlesex Centre, **2** in North Middlesex and **4** in Thames Centre for a total of **13** over the course of the year.

### Fire Services Revenue and Costs

### Motor Vehicle Responses

In 2020, Fire Services invoiced non-residents of Middlesex Centre a total of **\$89,104.08** for response due to Motor Vehicle Collision's on roadways within the Municipality.

### Asset Liquidation

From time to time, various pieces of outdate or replaced equipment are liquidated in order to recuperate revenue back into the Fire Services budget. In 2020, liquidated assets gain/loss amounted to approximately **\$3,675.00**

### Fire Marque

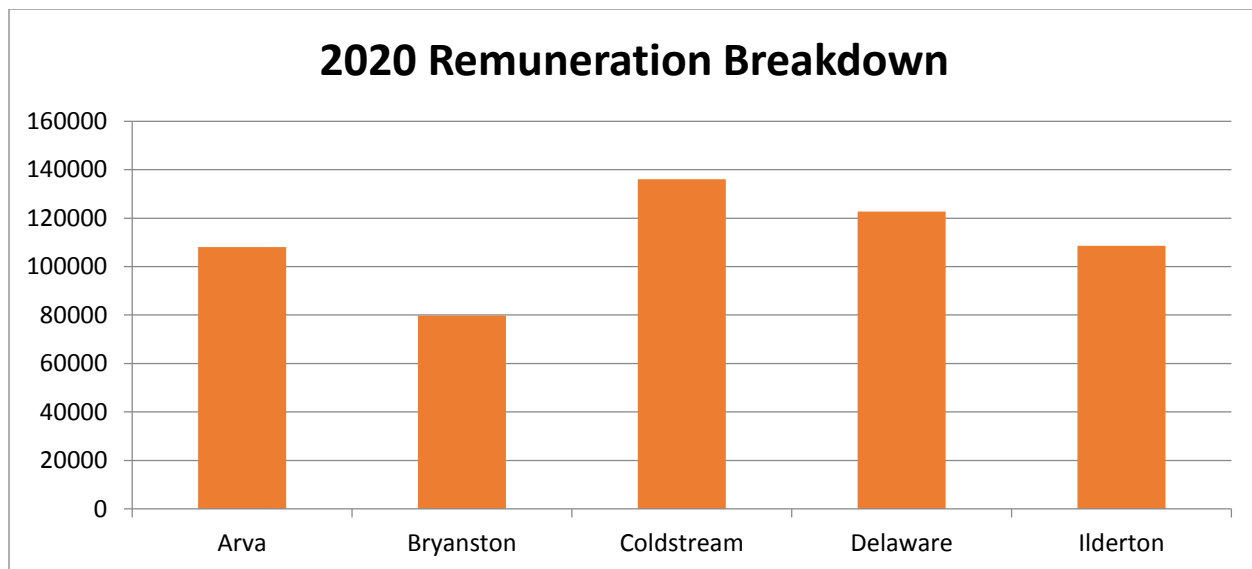
Fire Marque continues to be an affordable and effective way to recover revenue from structure fires. Middlesex Centre will continue to engage the professional services of this company in order to collect funds owed through insurance company policies. This revenue stream is solely dependant on the number of fires attended by MCFS over the course of the year. In 2020, Fire Marque was unable to recuperated funds on our behalf primarily based on the fact that these files do not settle quickly. In reality, it is not uncommon to see the previous years' revenue in the current year, however this is dependant on a number of factors of which the predominant being insurance companies willingness to cooperate.

### 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 fireworks events. In 2020, the Municipality received **\$600.00** for incident response report requests, up from **\$279.83** in 2019. Additionally, **\$113.00** was collected for fireworks bylaw-specific permits.

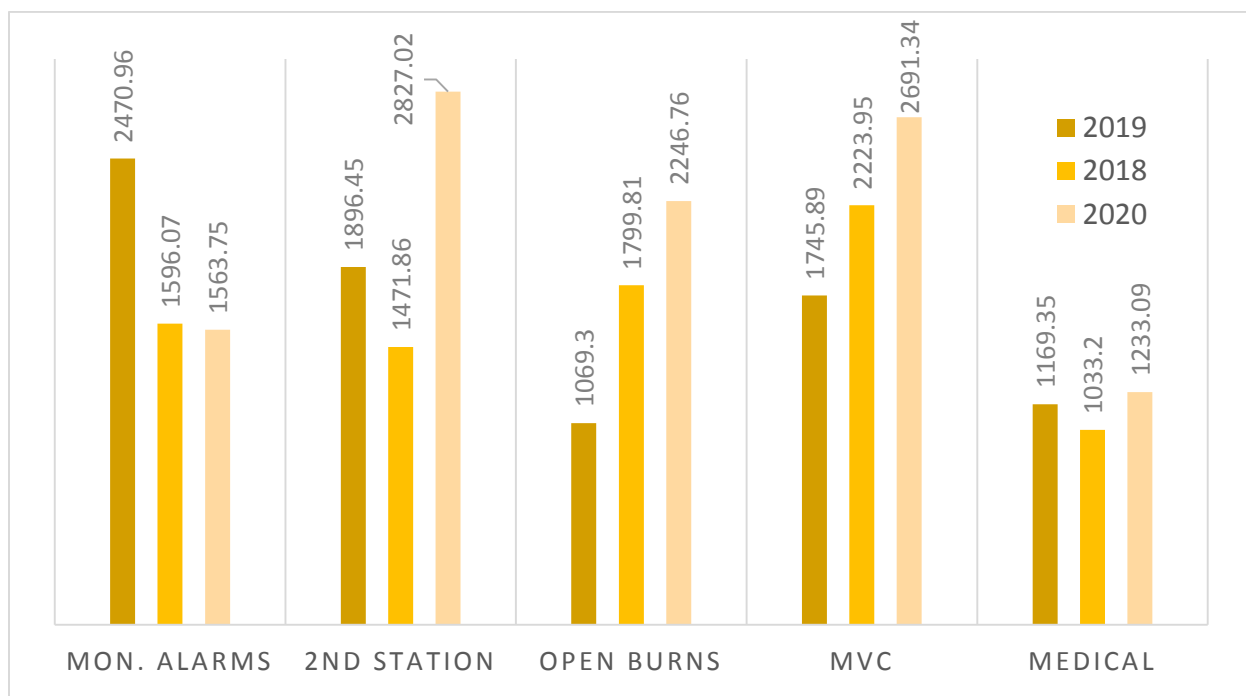
### Firefighter Payroll

Middlesex Centre compensates our professional, paid-on call firefighters on a 'points pay' system with base remunerations provided for Officer positions only. The chart below is a comparison of compensation costs by station over the past year.



### Specific Incident Response Costs

Below is a cost breakdown based on specific response types based on MCFS' "Top Five". (Vehicle utilization is based on Provincial "MTO" vehicle rate metrics)

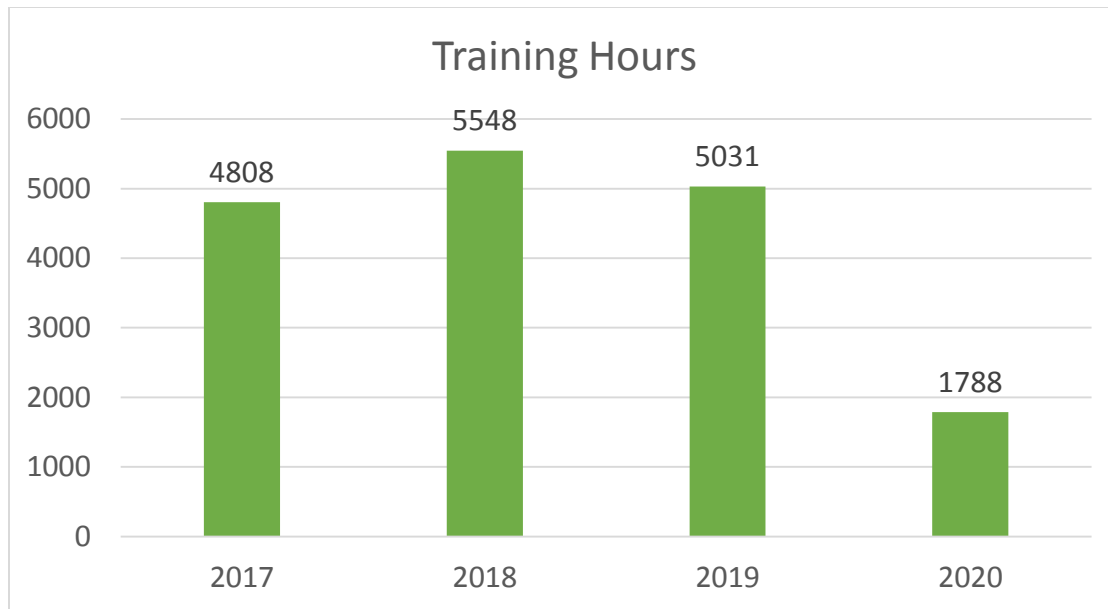


## **Training, Recruitment and Officer Development**

### **Standardized Training – Standards and Disciplines – Core Content Focus**

Through the course of a year, the training division, consisting of a Chief Training Officer and 5 Training Officers develop, deliver and document a schedule of standardized training topics based on MCFS' core training curriculum and training syllabus. Below are the combined training hours for 2020 for our standardized topics albeit, the decreased training hours are exclusively due to the pandemic which had an obvious adverse impact.

- Fire Streams
- NFPA 1001/1072 – Recruit Training
- NFPA 1041 – Fire Service Instructor Level 1
- NFPA 1021 – Officer Training Level 1
- Structural Search, Victim Removal, Survival
- 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 uses
- Loss Control
- Rescue Tools
- Technical Rescue
- Fire Behavior
- Fire & Life Safety
- Building Construction/Fire Code



### Specialty Rescue Services

Fire Services currently provides two specialty rescue teams - High angle rope rescue and water/ice/swift water rescue. Delaware station continues to provide rope rescue services with Coldstream maintaining training and certifications for water rescue. Both teams are highly skilled and continue training to National industry standards.

The teams currently have eleven (11) firefighters trained in water and ice rescue techniques with twelve (12) trained in high angle rope rescue.

### Paid "On-Call" Professional Firefighter Recruitment

Continuing in 2020, was MCFS' redesigned recruitment program which creates a more cost effective, streamlined and defensible process in order to meet Corporate and industry accepted recruiting practices. 2020 recruitment resulted in **94** applications being submitted for review. Out of the **94**, **39** were considered and interviewed for **15** available positions. **4** individuals interviewed were subsequently placed onto our reserve list(s) for immediate future consideration.

**The current compliment of MCFS sits at 112.**

### Firefighter, Officer Development and Training

MCFS will continue to move forward with our current development training program which includes a variety of new internal courses, efficiencies being made, opportunities and partnerships explored. Through a mutual partnership with two other Municipalities, training will continue to be customized and offered for the most part, onsite at our

Coldstream Station “Training Centre.” In the past, this type of training was not flexible, local enough or geared toward the “paid on-call” firefighting world and made attending courses uninviting and cumbersome to those involved.

An example of continued staff development and training is our Officer development program modeled after NFPA 1021 and 1041 Level 1 standards. This was key in 2020 and will be offered to those positioned for promotion and the newly promoted as part of the succession and promotion initiative.

New standards were added into our multi-municipal training program which include, NFPA 1521 Incident safety Officer, 1041 Fire Service Instructor as a blended, online program and 1002 Apparatus Operator and will move forward in 2021.

Finally, maintenance and upgrading the skills and tactics of our 6 Training Officers will continue in order to meet the ever demanding and increasing Industry accepted standards.

**MCFS is one of very few Fire Services across Ontario who can boast a 98% NFPA standard training percentage. This is inclusive of paid on-call or career service delivery models.**

#### Driver Certification Program

In 2018, Middlesex Centre Fire Services engaged in an agreement with the Township of Malahide to train new recruit drivers to the required Ontario class “D” license with a “Z” air brake endorsement - although at a substantially reduced cost! (This license is required to operate the majority of MCFS fire apparatus) In 2020, through this Ministry of Transportation approved Driver Certification Program, 4 firefighters attended and received their complete “D” license with “Z” endorsement! Due to the overwhelming success, plans to integrate this program into the current core firefighter training curriculum will take place in 2021.

#### Department Initiatives and Projects

In 2020, a number of new projects were started, completed with others ongoing simply based on their nature.

Below is an all encompassing overview and project matrix of accomplishment undertaken by MCFS in 2020 - inclusive of but not limited to the programs completed, carried forward, ongoing and upcoming for 2021.

As mentioned, MCFS expanded the provision of inspection and investigative services to include Thames Centre and continued with the implementation of our report and asset management system in support thereof.

A large-scale redesign and addition of 2 NFPA disciplines were added into our multi-Municipal training curriculum. We also received and deployed our new off-road UTV, designed, tendered and awarded contracts to build Delaware Tanker and Ilderton Engine along with moving up our timeline to purchase new MSA multi-gas monitors. We completed another very successful recruiting in mid-2020, adding many positions from Firefighter, Officer to Chief levels filling our complement to 112 and, continued on with our Medical training working under medical director oversight.

Due to the pandemic, we seized the opportunity to redesign and modernize our Municipal Emergency Management Program and in particular, the Emergency Response Plan and supporting Bylaws. Our team has also streamlined various processes such as fireworks and inspection bookings/applications, and ensured the interoperability between our stations, specifically in the realm of our apparatus have the ability to “interconnect” with each other and neighbours. Finally, the updating, referencing and overall modernizing of our Standard Operating Guidelines continues into 2021.

## Current Project Matrix 2020-21

### Priority Scale

Red – Highest Yellow – Medium Green – Complete & Ongoing Grey – Not Started / Long Term

Project Description	Priority	Progress – Information - Status
JHSC Upstart /OHSA	Ongoing	Complete w/ PSHSA Review suggestions – process 30% complete
Training Specific - PTSD (Legislated)	Ongoing	5 of 5 stations Completed – Working on New addition of the “Peer Support team” model
Training Specific -Fentanyl/Naloxone	Complete	5 of 5 stations Completed w/Nasal spray update. Maintained thru medical director program
Recruiting and Process Redesign	Complete	100% Complete –recruitment scheduled for late spring 2021
MTO Driver Training Program (DZ)	Complete	Bylaw passed, program designed
Firefighter Readjustment - Multi-Response Duties	Complete	2 Ilderton FF's Responding daytime w/ Bryanston Station
Asset Management / FUS Review	Ongoing	FUS Review Completed, Fire Pro Input Phase 90% Complete. Review every 5 years
Maps for Stations Settlement Areas + Ongoing Updates	Completed	100 % Complete, books being created (Electronic piece completed – uploaded onto Tablets)
Clothing/Station wear Updating – re-cresting - Branding	Completed	Cresting @ 100% Completed – few Tunics and name tags forthcoming

Awards Recognition Program (SOG 14.15)	Ongoing	100% Completed
Ilderton, Delaware and Coldstream Apparatus RFP	Ongoing	All 3 complete with pre-construction delayed due to pandemic and procurement difficulties
Deputy Fire Chief or FPO Position/Creation	Ongoing	100% Completed Final Business Case including Job Description presented to Council in 2018
Response Zone Modification	Ongoing	90% Completed Final Maps, Small Changes Made - Pilot "Recommend" CAD add-in asap!
Hydrant/Adapter Interoperability Project	Completed	Adapters, couplers and flow rates (In conjunctions w/ our water dept.)
Development of online Internal/External Processes	Completed	Internal and external processes such as Fireworks and inspection requests simplified and added onto our website for ease of use and convenience.
Equipment Modernization / Upkeep	Medium	Complete 4 Gas/HCN, TIC's, SCBA's, Apparatus, hose, Bunker gear etc.
Public Ed Program / Delivery Review + Branding	Medium	Review Completed – Public Education Business Plan w/Syllabus Forthcoming
Continued Communication between stations	Medium	Ongoing Goal Started April 2017 – Smartsheet program solution added!
Current Training Program re-organization and Addition	Medium	Complete Program in place. Teaching 1001, 472, 1021, expanding to 1521, 1002 and 1041
Tech Integration - Response and Accountability	Medium	80% Complete (Tablets, laptops, Mounts, and Screens)
Incident Command / Consistency Checklists	Medium	Completed with enhanced training being integrated with new Tablets in 2021
Annual Job Performance Reviews -Officers	Medium	Started – Target 2021 For junior officer only. Firefighters for 2022-23
Report management System Update, Modernization and Restructuring (BeeOn)	Medium	30% Completed - Deployment commencing Early January w/ completion TBD
Emergency Response Plan Re-Build	Ongoing	100% Complete – final draft produced Dec 2020
PTSD/Critical Incident support and training program re-design and Upgrading	Highest	Program in place – Upgrade Required –Scheduled 2 <sup>nd</sup> Quarter Projected Completion
Fire Prevention Program Service Sharing Finalization and Formalizing	Ongoing	Program in place – 95% completed NM and TC working Continuing with program modification enhancement
SOG's	Highest	60% Complete – Scheduled 3 <sup>rd</sup> - 4 <sup>th</sup> Quarter Completion. Referencing and overall Modernization
Fire Services Master Plan Fire Implementation	Highest	98% Complete however various items cannot be satisfied due to non-essential procedural changes
Bylaw Amendments – Service Agreements	Highest	Open Burn, Fee and charges, Emergency Management Bylaws X2, Establishing and Regulating Bylaw and Service Agreements X5

## 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 2020 the Municipality's Community Control Group actively participated in an internal review and familiarization of the newly structured EOC and, as determined by the Province, annual compliance exercises were deferred due to the "real-world" management experience attained from our current pandemic.

### 2020 Program Compliance Activities

EMPC Meeting – Completed  
ERP Review – Completed  
Annual Exercise – Postponed in lieu of Pandemic  
Middlesex Centre Flood Plan Review – Completed  
Annual CCG Training – Completed

### **Financial Implications:**

N/A

### **Strategic Plan:**

This matter aligns with following strategic priorities:

- 5a. Operational Excellence: Maintaining positive staff-community relations.
- 5b. Operational Excellence: Maintaining appropriate levels of staffing.
- 5f. Operational Excellence: Adapting to changing demands and expectations.

### **Attachments:**

Appendix: Schedule A