THE TOWNSHIP OF CLEARVIEW FIRE & EMERGENCY SERVICES

Master Fire Plan

March 2022

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EXECUTIVE SUMMARY

Master planning is a process of identifying a fire department's strategy and future direction, along with assisting the department in making decisions to more efficiently allocate its resources to pursue this strategy. This Master Fire Plan (MFP) created for The Township of Clearview Fire & Emergency Services (CFES) consists of a review of the community and the fire department, along with identifying present and future population statistics and anticipated growth of the community.

An MFP traditionally focused on the identification of fire hazards and planning an appropriate suppression response force. Today, hazard and risk assessment programs have expanded well beyond the fire problem to include emergency medical incidents, hazardous materials (HAZMAT) incidents, and many other emergency situations. As such, to help mitigate these emergencies as much as possible, more emphasize is being placed on fire prevention and control systems as communities attempt to effectively reduce fire related losses.

Current challenges faced by CFES are like those faced by many rural/urban interface fire departments in Ontario. These challenges include increased rigour from statutory and standards requirements related to firefighter health and safety, increased skills and competencies required, changing work patterns, and increased emphasis on prevention and public education are examples of some common themes.

A review of past and present service levels was completed, keeping in mind the overall goals and expectations of the department. Based on the review, a set of recommendations have been provided. To assist with prioritization and implementation, the recommendations provided by EM&T have been broken down into the following timelines:

- Immediate – should be addressed urgently due to legislative or health and safety requirements or critical operational needs.
- Short-term – 1 – 3 years
- Mid-term – 4 – 6 years
- Long-term – 7 – 10 years

Ultimately, the implementation of the recommendations will depend on the Township's resources and ability to move forward with the associated recommendations contained within the document.

This report has addressed the scope of work as noted in the Township's Request for Proposal, which includes the following key components:

- Administration
- Service delivery

- Emergency response including mutual aid, automatic aid, and fire protection agreements
- Fire Prevention including public education, inspections, enforcement, and investigations
- Fire Suppression and Rescue operations
- Training and Education
- Firefighter safety, health, and wellness
- Fire station facility and location with response and cover mapping
- Apparatus and equipment
- Assessment of existing fire service facilities, equipment, and assets
- Maintenance program for apparatus and equipment
- Emergency management program
- Human Resources/Leadership including staffing, organizational chart, workload, recruitment and retention, succession planning, promotional processes, etc.
- Reporting structure and requirements
- Finance/budget, including operational, capital, and reserve budgets, and development charges
- Potential revenue generation strategies
- Opportunities for innovative solutions

For the purpose of clarification within this document, the firefighters will be referred to as volunteers who are in-fact, paid on-call firefighters. The firefighters receive pay for their time spent responding to emergency incidents and supporting CFES operations.

To ensure that they are meeting the needs of the community and their staff, the Fire Chief and Council recognizes that it is necessary to conduct this MFP for the intention of providing high-quality fire services to the residents and businesses of the community along with its visitors.

Based on the information received during our meetings, a review of supplied documentation and reference to industry standards and best practices, there are a total of 40 recommendations for consideration by the Fire Chief and Council to guide the Fire Department into the future.

A quick reference chart has been included within this Executive Summary. A more detailed chart including timelines for implementation, rationale, as well as estimated costs per recommendation. This detailed chart can be found in Section 11.

Rec#	Recommendation	Suggested Timeline
Section 1: Community & Fire Department Overview		
1	The present E&R By-law be reviewed, updated to reflect more recent changes from the Ontario Fire Service Curriculum to the NFPA Standards, and presented to Council for approval. The update should also include an outline of services being delivered by the fire department.	Short-term (1 – 3 years) and ongoing
2	CFES to undertake a review and update the following by-laws: • County of Simcoe Mutual Aid Plan and Program (# 07-49) • Open Air Burn (# 14-06) • Fireworks (# 08-22)	Immediate
Section 2: Planning		
3	A third-party consultant be engaged to assess and provide a report that outlines communications, organizational culture change, and effective communications and dispute resolution issues, along with potential training solutions for all staff.	Short-term (1 – 3 years)
Section 3: Risk Assessment		
4	The Township of Clearview and the CFES complete a CRA prior to the 2024 requirement of the OFMEM.	Short-term (1 – 3 years)
5	The Township of Clearview develop a comprehensive CRRP that falls in line with the CRA upon its completion.	Short-term (1 – 3 years)
6	CFES to work in conjunction with residential developers in promoting the advantages of installing residential fire sprinklers.	Short-term (1 – 3 years) and ongoing
7	The CFES management team regularly access the FUS Municipal Fire Portal to communicate improvements and/or updates. This data could relate to new fire apparatus replacements, new fire stations, new construction, hydrants in new sectors, etc.	Short-term (1 – 3 years)
8	CFES's SOPs be renamed as SOGs thereby allowing for the IC and Officers to make decisions based on their good judgement and the circumstances before them.	Short-term (1 – 3 years)
9	An SOP Committee be re-established with representation of all divisions of the Department. It is further recommended that the Department's SOGs be reviewed annually and be updated to meet current industry standards.	Short-term (1 – 3 years)

Rec#	Recommendation	Suggested Timeline
10	CFES to establish JH&S Committee specific to the needs of the fire service, in accordance with the *Occupational Health & Safety Act* of Ontario.	Short-term (1 – 3 years)
Section 4: Fire Department Divisions (Non-Suppression)		
11	CFES to utilize a senior officer from the current suppression ranks as a District or Platoon Chief on a trial basis.	Short-term (1 – 3 years)
12	Clearview enact a by-law for the operation of second units, outlining that the suites must be compliant with provincial legislation and be registered or licenced with the Township.	Short-term (1 – 3 years)
13	CFES hire a third party under a temporary contract to complete the fire inspections and public education until such time as a decision on the full-time position is made.	Immediate
14	CFES review the inclusion of the public, as non-responding members of CFES, in the delivery of public education.	Short-term (1 – 3 years)
15	Fire Prevention Division monitor inspection and public education requirements and consideration be given to the addition of more FPOs to assist in ensuring all needs of the Division are met.	Short-term (1 – 3 years)
16	FPO to complete the NFPA 1033, Standard for Fire Investigation course and that the FPO and any officers (who have completed the NFPA 1033 course) seek certification.	Short-term (1 – 3 years)
17	CFES to develop an annual training plan, resourced with funding, implement, and continually assess to ensure that the volunteer firefighters are completing the required training.	Short-term (1 – 3 years)
18	CFES should further investigate the value of purchasing a mobile live fire training unit, as opposed to utilizing the OFMEM mobile trailer, when/if available. The findings of the review are to be presented to Council for approval of preferred option.	Short-term (1 – 3 years)
Section 5: Fire Suppression Response, Dispatching Services, and Recruitment & Retention		
19	Clearview dispatch agreement with Barrie Fire & Emergency Service to include references to NFPA 1225 and 1061.	Short-term (1 – 3 years)
20	CFES invest in decontamination equipment and develop the appropriate policies and SOPs in performing decontamination of firefighters at the scene of a fire.	Short-term (1 – 3 years)

Rec#	Recommendation	Suggested Timeline
21	CFES develop a formal health and wellness program that includes all facets of health and wellness. This should include physical fitness, mental health, and cancer prevention.	Short-term (1 – 3 years)
22	CFES develop and implement a Respiratory Protection Program in accordance with applicable Acts and Regulations.	Short-term (1 – 3 years)
23	CFES to investigate the costs and benefits of increasing full-time fire prevention/suppression personnel as the community grows and volunteerism declines.	Immediate (0 - 1 year)
Section 6: Facilities, Vehicles, & Equipment		
24	The Township of Clearview to prioritize the replacement of Station #3, in New Lowell, in 2022.	Short-term (1 – 3 years)
25	The exhaust extraction system at Station 4, Creemore, be replaced and upgraded	Short-term (1 – 3 years)
26	Safety features to be installed on all the apparatus overhead doors as noted.	Short-term (1 – 3 years)
27	CFES to acquire an aerial device with a height of at least 22 m (75') and that the acquisition of a used device be explored.	Short-term (1 – 3 years)
28	CFES to repurpose the Chief's vehicle when they are replaced by assigning them to either the Training or Fire Prevention Officer, or to a station as a support vehicle.	Short-term (1 – 3 years)
29	CFES, the County of Simcoe Traffic Department and the Ministry of Transportation of Ontario, discuss having pre-emptive technology included in any upgrades to existing traffic control systems as well as new installations.	Short-term (1 – 3 years)
30	Clearview adopt the NFPA 291 colour code for identifying fire flow capacity of fire hydrants.	Short-term (1 – 3 years)
Section 7: Emergency Management		
31	Clearview review partnership opportunities in the delivery of an ASHER program to the community.	Short-term (1 – 3 years)
32	The Township of Clearview update their ERP to ensure it is current and identifies the responsibilities of those involved once the ERP is activated.	Short-term (1 – 3 years)
33	The Township of Clearview review opportunities of installing storm sirens in the built-up areas of the municipality. This should	Short-term (1 – 3 years)

Rec#	Recommendation	Suggested Timeline
	include opportunities of a joint installation with the County of Simcoe, or applying for funding in the form of grants, if made available by upper levels of Government.	
34	The Township of Clearview review the feasibility of acquiring an emergency notification system, or at least gain access to messaging on the Alert Ready app	Short-term (1 – 3 years)
35	All members of the Clearview CCG complete the Basic Emergency Management course.	Short-term (1 – 3 years)
36	Due to the importance of staff understanding their roles and responsibilities in the EOC, it is recommended that a policy be implemented that identifies IMS 200 as the minimum standard for staff required to be in the EOC with IMS 300 being the goal for all department heads. It is further recommended that the IMS be enhanced within the Township's ERP.	Short-term (1 – 3 years)
37	CEMC to prepare a three-year training schedule for Clearview CCG members and support staff, identifying EOC activation orientation and annual tabletop and operations-based exercises for the CFES, Township, and external agencies	Short-term (1 – 3 years)
Section 8: Fire Service Agreements		
38	The Township of Clearview and the CFES to review and update all automatic aid and response agreements currently in place.	Short-term (1 – 3 years)
Section 9: Finance, Budgeting, Fees & Charges, and Cost Recovery Mechanisms		
39	Ensure all major equipment has a planned and formally developed life-cycling replacement program with timelines and costs.	Short-term (1 – 3 years) and ongoing
40	Review and update the Fees By-Law.	Short-term (1 – 3 years) and ongoing

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DEFINITIONS

Immediate	Recommendations that should be addressed urgently due to the legislative or health and safety requirements or critical operational need
Short-term	Recommendations that should be addressed within 1 – 3 years
Mid-term	Recommendations that should be addressed within 4 – 6 years
Long-term	Recommendations that should be addressed within 7 – 10 years
AED	Automatic External Defibrillator
AHJ	Authority Having Jurisdiction
AODA	Accessibility for Ontarians with Disabilities Act
ASA	Acetylsalicylic acid
ASHER	Active Shooter/ Hostile Event Response
AVL	Automatic Vehicle Locators
BEM	Basic Emergency Management
BFES	Barrie Fire & Emergency Service
BLS	Basic Life Support
CACC	Central Ambulance Communications Centre
CAD	Computer-Aided Dispatch
CAO	Chief Administrative Officer
CBRNE	Chemical, Biological, Radiological, Nuclear, Explosive
CCG	Community Control Group
CEMC	Community Emergency Management Coordinator
CERB	Central Emergency Reporting Bureau
CFAI	Commission on Fire Accreditation International
CFES	Clearview Fire & Emergency Services
CISC	CRTC Interconnection Steering Committee
CISM	Critical Incident Stress Management
CO	Carbon Monoxide
CPSE	Centre for Public Safety Excellence
CRA	Community Risk Assessment
CRRP	Community Risk Reduction Plan
CRTC	Canadian Radio-television & Telecommunications
CSPS	County of Simcoe Paramedic Service
DPG	Dwelling Protection Grade
DRD	Drag Rescue Device
E&R	Establishing & Regulating (By-law)
EAP	Employee Assistance Program

EM&T	Emergency Management & Training Inc.
EMCPA	Emergency Management & Civil Protection Act
EMO	Emergency Management Ontario
EMS	Emergency Medical Services
EOC	Emergency Operation Centre
ERP	Emergency Response Program
ESA	Electrical Safety Authority
EVP	Emergency Vehicle Pre-emptive
EVT	Emergency Vehicle Technician
FESO	Fire and Emergency Services Organization
FPO	Fire Prevention Officer
FPPA	Fire Protection & Prevention Act
FPSS	Fire Protection Survey Services
FUS	Fire Underwriters Survey
GCPS	Grey County Paramedic Service
GN	Guidance Note
GPM	Gallons Per Minute
GPS	Global Positioning System
HAZMAT	Hazardous Materials
HFSC	Home Fire Sprinkler Coalition
HIRA	Hazard Identification & Risk Assessment
IC	Incident Commander
ICS	Incident Command System
IMS	Incident Management System
IP	Internet Protocol
IRM	Integrated Risk Management Approach
JH&S	Joint Health & Safety Committee
L/min	Liters Per Minute
MFP	Master Fire Plan
MOU	Memorandum of Understanding
MVC	Motor Vehicle Collision
NFPA	National Fire Protection Association
NG 9-1-1	Next-generation 9-1-1
NIOSH	National Institute for Occupational Safety & Health
NIST	National Institute of Standards and Technology
OAFC	Ontario Association of Fire Chiefs
OBC	Ontario Building Code
OFC	Ontario Fire College

OFMEM	Ontario Fire Marshal's Office and Emergency Management
OOS	Out of Service
OPP	Ontario Provincial Police
OSI	Occupational Stress Injuries
PFPC	Public Fire Protection Classification
PFLSE	Public Fire & Life Safety Educator
PPE	Personal Protective Equipment
PSAPs	Public Safety Answering Points
PSI	Pounds Per Square Inch
PTSD	Post Traumatic Stress Disorder
RFP	Request for Proposal
RTT	Real-time Text
SCBA	Self Contained Breathing Apparatus
SDS	Safety Data Sheets
SOG	Standard Operating Guideline
SOP	Standard Operating Policy
SRA	Simplified Risk Assessment
STA	Short Term Accommodation
TSP	Telecommunications Service Provider
TSSA	Technical Standards & Safety Authority
VFIS	Volunteer Firemen's Insurance Services
VoIP	Voice Over Internet Protocol
VSA	Vital Signs Absent
WSIB	Workplace Safety & Insurance Board

INTRODUCTION

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Review Process & Scope

EM&T has based its review process on the Township's initial Request for Proposal and the response document submitted by EM&T. The MFP review was completed by utilizing best practices, current industry standards, and applicable legislation as the foundation for all work undertaken. EM&T also used both quantitative and qualitative research methodologies to develop a strong understanding of current and future needs and circumstances of the community.

Scope of Work

As noted in the original Request for Proposal, the following generally describes the responsibilities of the Consultant.

The Scope of Work entails a complete review of the following:

1. **Governance –** review the applicable legislation as it relates to CFES including all related by-laws such as the Establishing and Regulating By-Law (E&R), Fire Route By-Law, Fireworks By-Law, Appointment and Duties By-Law, Open Air Burn By-Law, and Emergency Response Plan By-Law. Consultant to make recommendation where required.
2. **Emergency Response –** examines the fire call volume including types of calls, number of calls, equipment deployment, manpower deployment and safety of personnel. Make recommendations where required.
3. **Fire Prevention –** review program and make recommendations regarding fire prevention, inspections, investigations, and public education.
4. **Training and education –** review program and make recommendations.
5. **Human Resources –** review and make recommendations regarding fire department staffing including full time and volunteer/part-time firefighters. Examine and review firefighter recruitment, retention, promotional process, succession planning and demographics. This includes review applicable job descriptions.
6. **Station Locations –** examine the five (5) station locations and make comment/recommendations relative to providing adequate and reasonable fire protection for the Township of Clearview.
7. **Apparatus & Equipment –** examine the fire apparatus and major pieces of equipment including types of vehicles, age, and effectiveness.
8. **Maintenance Program –** review the program regarding fire apparatus and equipment.

9. **Dispatch & Radio System –** review current dispatch system, paging and radio systems. Make recommendations as required.
10. **Budgets** – review the fire department operating budget, capital budget, reserves (equipment, station, and vehicles) and development charges. Examine revenues and potential revenue opportunities.
11. **Emergency Preparedness Program** – review the Emergency Preparedness Program as managed by a Fire Chief/ Community Emergency Management Coordinator (CEMC)

Based on the previously noted criteria, through meetings with the Fire Chief and other stakeholders, the consulting team was able to complete a thorough review of elements that are working well and areas requiring improvement within the CFES. Data provided by the department was also reviewed in relation to all the previously noted items contained in the Clearview's request for proposal.

Based on the review of the CFES facilities, equipment, programs and related data, EM&T is submitting a total of 40 recommendations that can be implemented.

Performance Measures and Standards

This MFP has been based upon (but not limited to) key performance indicators that have been identified in national standards and safety regulations such as:

- The Ontario Fire Marshal's Office and Emergency Management (OFMEM) Public Fire Safety Guidelines.
- *The Fire Protection & Prevention Act* and its subordinate regulations, including the Ontario Fire Code O. Reg 213/07, Mandatory Assessment of Complaints and Requests for Approval O. Reg 365/13, and Mandatory Inspection – Fire Drill in Vulnerable Occupancy O. Reg 364/13.
- OFMEM Integrated Risk Management (IRM) program.
- The *Ontario Health and Safety Act*, with reference to the National Institute for Occupational Safety and Health (NIOSH).
- Ontario Fire Service – Section 21 Guidelines:
    - The Section 21 Committee is based on Section 21 of the *Ontario Occupational Health and Safety Act*. This committee is charged with reviewing industry safety concerns and developing recommended guidelines to reduce injuries for the worker.
- The National Fire Protection Association (NFPA) standards:
    - NFPA 1001 – Standard for Fire Fighter Professional Qualifications
    - NFPA 1002 – Standard for Fire Apparatus Driver/Operator Professional Qualifications

- NFPA 1021 – Standard for Fire Officer Professional Qualifications
- NFPA 1031 – Standard for Professional Qualifications for Fire Inspector and Plan Examiner
- NFPA 1033 – Standard for Professional Qualifications for Fire Investigator
- NFPA 1035 – Standard on Fire and Life Safety Educator, Public Information Officer, Youth Fire Setter Intervention Specialist and Youth Fire Setter Program Manager Professional Qualifications
- NFPA 1041 – Standard for Fire Service Instructor Professional Qualifications
- NFPA 1061 - Professional Qualifications for Public Safety Telecommunications Personnel
- NFPA 1072 – Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications
- NFPA 1201 – Standard for Providing Fire and Emergency Services to the Public
- NFPA 1221 – Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems
- NFPA 1500 – Standard on Fire Department Occupational Safety, Health, and Wellness Program
- NFPA 1521 – Standard for Fire Department Safety Officer Professional Qualifications
- NFPA 1720 – Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments
- NFPA 1730 – Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations
- NFPA 1901 – Standard for Automotive Fire Apparatus
- NFPA 1911 – Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles

- The Commission on Fire Accreditation International (CFAI), which is a program that promotes fire service excellence by evaluating a fire department based on related NFPA standards, local legislation, and industry best practices (the parent organization for CFAI is the Centre for Public Safety Excellence).

    - This program has been adopted by many fire departments in Canada as a measure of best practices. Within Ontario, Guelph, Kitchener, and Ottawa are just a few fire departments that have obtained accreditation from the CFAI.
- Fire Underwriters Survey (FUS) technical documents

Project Consultants

Although several staff at EM&T were involved in the collaboration and completion of this Plan, the overall review was conducted by level of project involvement:

- Rick Monkman, Fire Service Consultant – Project Lead
- Phil Dawson, Fire Service Consultant
- Lyle Quan, Vice President of Operations
- Darryl Culley, President

Together, the team has amassed a considerable amount of expertise in all areas of fire and emergency services program development, review, and training, amounting to 150 years of experience. The EM&T team has worked on projects that range from fire service and municipal reviews, creation of strategic plans and MFPs, and development of emergency response programs for clients.

SECTION 1

Community & Fire Department Overview

SECTION 1: COMMUNITY & FIRE DEPARTMENT OVERVIEW

The MFP for CFES will address current and anticipated community fire risks and needs over the next five to ten years. The objective of the MFP is to examine, research and review all aspects of fire department operations, planning, fire prevention, public education, training, communications, apparatus, equipment, maintenance, human resources, station locations, budget, and large-scale emergency preparedness.

This review has resulted in a set of recommendations to enhance the services provided to CFES staff and the community of Clearview. This will greatly assist the Fire Chief with future planning relating to staffing and response, fire and life safety programming, and asset management.

1.1 Community Overview

Clearview Township was established on January 1, 1994, when the Town of Stayner, the Village of Creemore and the Townships of Nottawasaga and Sunnidale were amalgamated.[1] The current population is 15,032 with 6,000 private dwellings and a land area of 557 km^2.[2] The township comprises the communities of Avening, Batteaux, Brentwood, Cashtown Corners, Creemore, Dunedin, Duntroon, Glen Huron, Maple Valley, New Lowell, Nottawa, Pretty River Valley, Smithdale, Stayner, Sunnidale, Sunnidale Corners and Websterville.[3]

Clearview borders the following municipalities:

- North, Collingwood, Wasaga Beach
- East, Springwater, Essa
- South, Adjala-Tosorontio, Mulmur, Melancthon
- West, Grey Highlands, The Blue Mountains

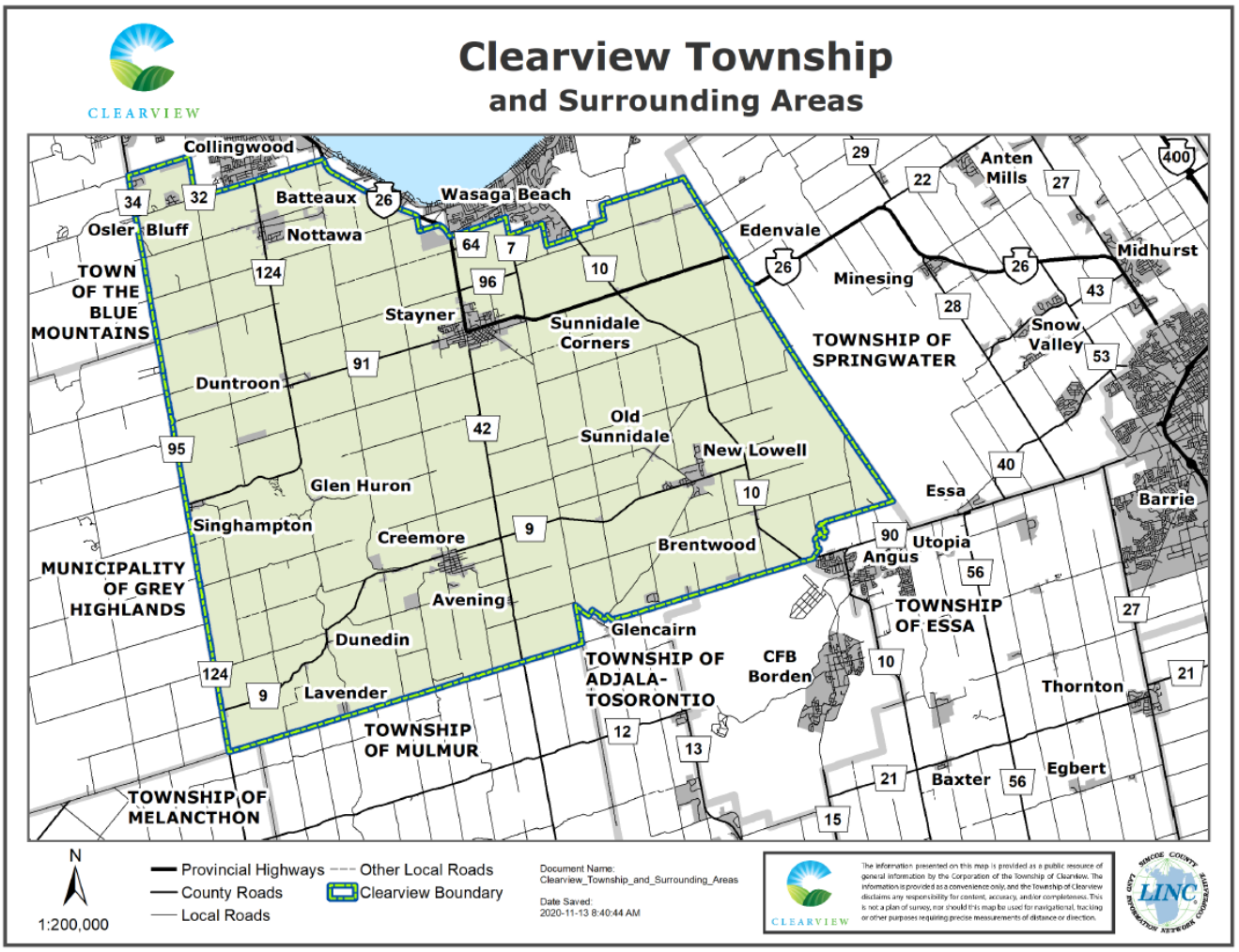
Clearview Township is a gateway community for those travelling to Blue Mountain and Wasaga Beach. Additionally, it provides a second home to many people from the GTA. The municipality has a mixture of smaller urban centers, hamlets, agriculture, and rural residential, and commercial and industrial developments. There is a small to moderate industrial base but most residents commute to work in other cities and municipalities.

The Township is serviced by CFES which is made up of 90 dedicated and professional volunteer firefighters operating out of five stations with a total of 17 pieces of rolling stock. The Department's

[1] "Clearview, Ontario," Wikipedia, accessed January 21, 2022, https://en.wikipedia.org/wiki/Clearview,_Ontario
[2] Clearview (Township, Canada) Population Statistics, Charts, Map and Location, accessed January 5, 2022, https://www.citypopulation.de/en/canada/ontario/admin/simcoe/3543005__clearview/
[3] Clearview, Ontario," Wikipedia, accessed January 21, 2022, https://en.wikipedia.org/wiki/Clearview,_Ontario

annual call volume is approximately 750 - 800 calls per year. In addition to fire response, the Department responds to all the standard fire responses one would expect in addition to ice/water rescue level. A medical response and a training program are in place for slope/low angle rescue.

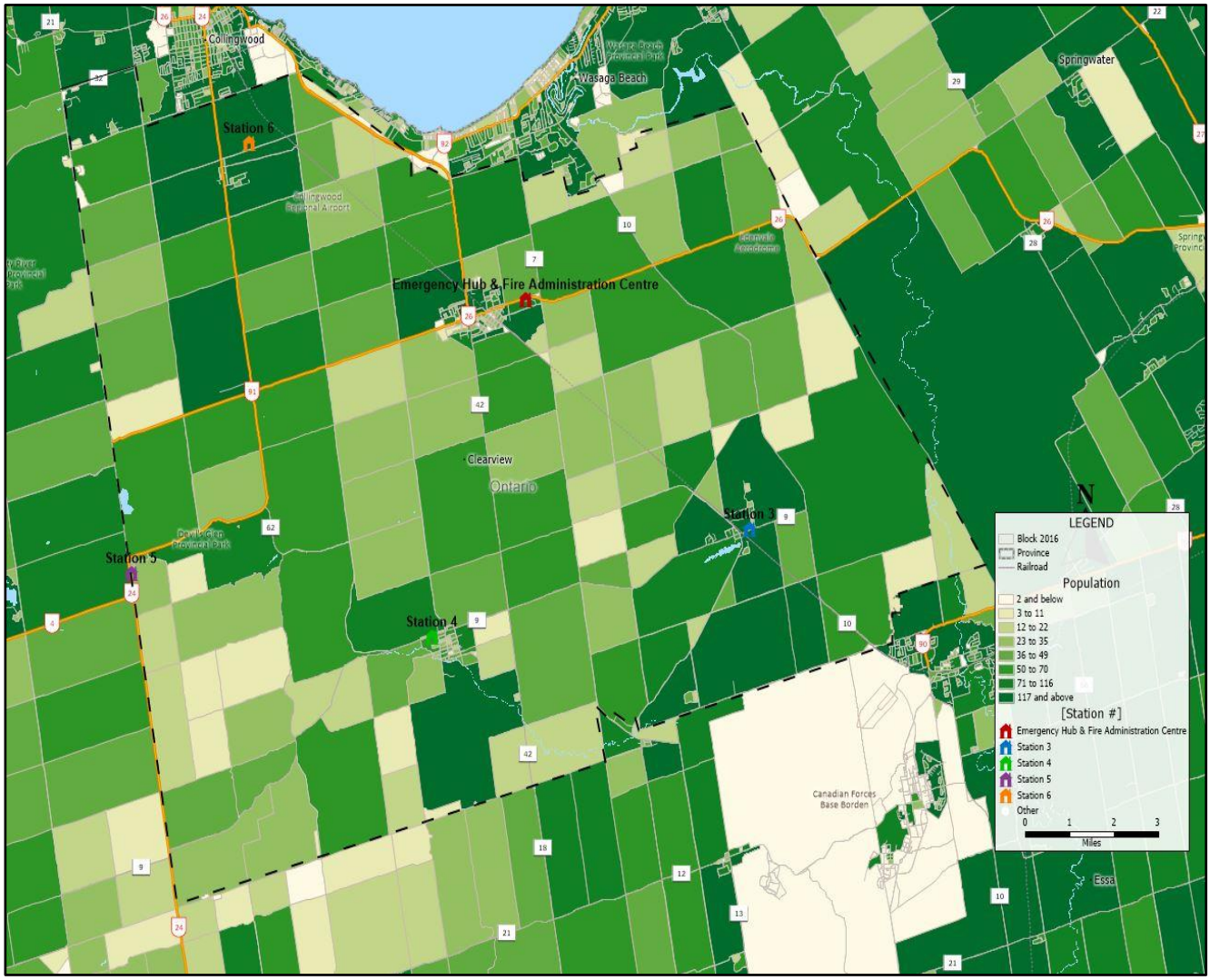
FIGURE #1: Clearview Township and Surrounding Areas



The Township's permanent population is anticipated to reach approximately 20,059 by early-2029 and 24,467 by early-2039. This will result in an increase of 5,819 and 10,057 persons, respectively, the next 20 years. The Township's seasonal population is forecast to increase to an additional 2,824 persons in 2029, and 3,011 persons in 2039. The Township's total population (permanent and seasonal population) is forecast to reach 22,883 by 2029, and 27,478 by 2039. [4]

[4] "Development Charges Background Study Township of Clearview," February 2019, accessed December 23, 2021, https://www.clearview.ca/sites/default/files/docs/building-planning/2019_dc_background_study.pdf - Page 3-4

FIGURE #2: Population Density Map



1.2 Fire Service Composition

CFES responds to approximately 750 - 800 calls per year out of the five fire stations.

- 2021 – 800 calls (estimated)
- 2020 – 710 calls
- 2019 – 798 calls
- 2018 – 771 calls

These calls range from fires to medical assist, to motor vehicle collisions. The demand can vary based on weather conditions (e.g., storms, heat waves, dry conditions), highway traffic and road conditions, etc. The 2020 slight drop in call volume is likely due to less traffic and movement of population

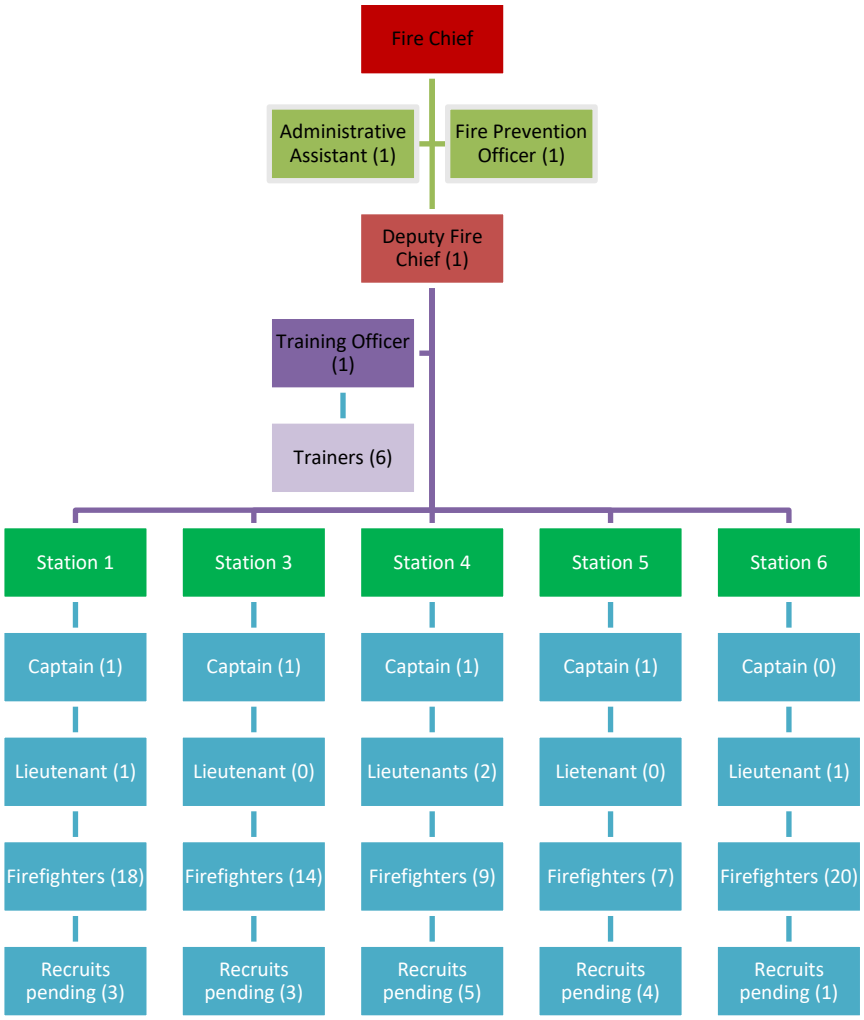
(including visitors) during the COVID-19 event as call volume trend has been otherwise steadily increasing since pre-2018.

The organizational structure of the Clearview is composed as follows:

- Fire Chief (full-time)
- Administrative Assistant (full-time)
- Deputy Fire Chief (full-time)
- Fire Prevention Officer (full-time)
- Training Officer (full-time)
- 92 firefighters (volunteer)

The organizational chart noted in FIGURE #3 reflects the general reporting structure within the Fire Department and the Fire Chief reports directly to the Chief Administrative Officer (CAO).

FIGURE #3: Clearview Organizational Chart



The Township's fire department is comprised of five fire stations:

- Emergency Hub and Fire Administration (Station #1)– 6993 Highway 26, Stayner
- Station #3 – 5212 County Road 9, New Lowell
- Station #4 – 7655 County Road 9, Creemore
- Station #5 - 794055 County Road 124, Singhampton
- Station #6 - 95 Batteaux Sideroad, Nottawa

Station 2, at Sunnidale Corners, was closed years ago. Each fire station has a complement of volunteer firefighters that respond to calls for service on a 24/7 basis.

1.3 Governance and Establishing & Regulating By-law

One of the primary legislations requiring compliance with is the Province of Ontario's *Fire Protection and Prevention Act*, 1997 (FPPA). This *Act* outlines and mandates minimum standards that must be adhered to for providing life safety systems to a municipality. The following are the minimum standards:

- A simplified risk assessment (which is now replaced by the Community Risk Assessment (CRA).
- A smoke alarm program
- Distribution of fire safety education materials
- Participating in inspections upon complaint or when requested to assist with fire code compliance
- Vulnerable Occupancy Program meets Provincial Regulations

An E&R by-law is a municipal Council document outlining policy for fire protection services that can be utilized to demonstrate how the municipality meets the needs and circumstances that Council determines are necessary. In doing so, a municipal E&R by-law can state the type and level of fire protection services provided and may include policy direction in such areas as:

- Legislative requirements that may impact the delivery of fire protection services such as the *Fire Protection and Prevention Act*, *The Occupational Health & Safety Act*, *Environmental Protection Act*, and *Municipal Act*, to name a few.
- Fire Marshal directives
- Best practices as found in the Ontario Fire Service, Section 21 Advisory Committee Guidance Notes and NFPA Standards.
- General function and core services to be provided.
- Goals and objectives of the department.
- Vision, Mission and Value Statements of the fire department.
- Responsibilities of the fire department.

- Organizational structure of the department.
- Authority to respond to calls, beyond established response areas such through mutual and automatic aid agreements.
- Authority to invoice property owners for subsequent costs created during a fire investigation.
- Any necessary departmental operation.
- Fire prevention programs, that include a smoke and carbon monoxide alarm programs, public education, and inspections and enforcement of the OFC.
- Response and training levels such as awareness, operations, technical when attending technical rescues and HAZMAT incidents.
- Some municipalities have included the job descriptions of all the positions within the department.
- May include references to other municipal by-laws such as Outdoor Burning, Fireworks, Second Suite.

The current E&R for the CFES was last updated in 2014, which makes eight years old and in need of updating. This by-law is the guiding document that outlines such things as what services the Department is expected to provide to the community. It is therefore recommended that this document be reviewed annually, or as significant changes occur to the community. This ensures that the noted services levels, service expectations, and authority of the Fire Chief are properly aligned with the service needs of the community. As part of any by-law update process, the draft should be vetted through the Township solicitor prior to going to council.

No definitive response time expectation/ criteria are noted in the Department's E&R. NFPA and the CFAI recommend that some type of assessment be completed to evaluate a baseline for a department's response time goal. To accomplish this, the CFAI recommends that a minimum of the past three years' response times be reviewed. This review will offer an understanding of how the Department has been performing, along with identifying areas for possible improvement in relation to station location and vehicle and staffing distribution. More information on response times will be covered in Section 5 of this report.

Recommendation #1: The present E&R By-law be reviewed, updated to reflect more recent changes from the Ontario Fire Service Curriculum to the NFPA Standards, and presented to Council for approval. The update should also include an outline of services being delivered by the fire department.

Rationale: Updating the by-law will make it more current with the changes taking place in the Ontario Fire Service in respect to training firefighters.

1.4 Assessment of Current Fire Services By-laws

The Department is guided in its operations by provincial legislation, industry standards (best practices), municipal bylaws, agreements, and policies. The following is a list of the primary legislation and standards:

- *Fire Prevention and Protection Act,* 1997 (FPPA)
- Ontario Fire Marshal's Public Safety Guidelines
- *Emergency Management and Civil Protection Act* (R.S.O. 1990)
- Ontario Building & Fire Codes
- National Fire Protection Association (NFPA) Standards
- *Occupational Health & Safety Act* (OH&S) and Section 21 Committee Guidelines
- Municipal Bylaws
- Corporate Policies and Guidelines
- Department Policies and Standard Operating Guidelines
- *Highway Traffic Act*
- *Municipal Act*
- *Municipal Freedom of Information and Protection of Privacy Act* (MFIPPA)

EM&T generally suggests the establishment of regular reviews of all primary legislation and standards to be conducted to ensure understanding and compliance with any legislation typically managed by municipal staff.

The following municipal by-laws were reviewed by EM&T as they are relevant in whole or have relevant sections pertaining to CFES:

- County of Simcoe Mutual Aid Plan and Program (# 07-49)
- Open Air Burn (# 14-06)
- Development Charges (# 19-36)
- Fireworks (# 08-22)

It was noted that these by-laws, for the most part, are not current except for the Development Charges By-law #19-36) which would still benefit from clarification of municipal expectations regarding resources (i.e., Mutual Aid)), revised fees and charges. CFES should undertake a comprehensive review to confirm, revise, or otherwise ensure that all relevant by-laws reflect current operations, cost/revenue needs, and community service level requirements. Developing a scheduled review and update of each by-law will ensure they remain current in the years ahead and during the term of the MFP.

Leveraging comparable communities, partner agencies and departments, and creating working groups to review and propose updates to E&R By-law or other pertinent governance and regulating documents is a best practice and risk management process. The process requires considerable time and staff resources and can be a significant undertaking to complete in-house, depending on the resources available. Nevertheless, consistent review and updating of by-laws, policies, procedures, and guidelines is an essential requirement for the Fire Service.

Consideration of the use of a third-party to assist in this process is one potential solution to ensure provincial legislation, industry standards (best practices), municipal by-laws, agreements, and policies are current.

Recommendation #2: CFES to undertake a review and update the following by-laws:

- ***County of Simcoe Mutual Aid Plan and Program (# 07-49)***
- ***Open Air Burn (# 14-06)***
- ***Fireworks (# 08-22)***

Rationale: *The by-laws have not been updated in some time and do not reflect any changes that may have taken place since their passing.*

SECTION 2 Planning

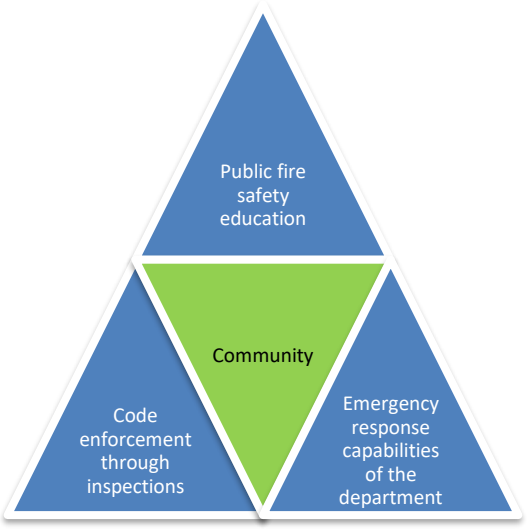
SECTION 2: PLANNING

Planning is a key function of any organization and should be done with a focus on the present needs of the community, coupled with its future growth and how this will affect the service demands on the fire department. The initial phase of such planning efforts is to identify the strengths, weaknesses, opportunities, and threats affecting the department and the community it serves.

2.1 Three Lines of Defence

The OFMEM have identified "Three Lines of Defence" to be utilized by all fire departments in Ontario when planning to meet the needs of the community.

The identified three lines of defence, as noted by the OFMEM, are:



1. **Education** – Fire safety education is the key to mitigating the fire and life hazards before they start. With the growth of the community, how will the municipality continue to meet the fire safety educational needs of the community?
2. **Fire Safety Standards and Enforcement** – If the public education program does not prove effective, then the next step is for the fire department to enforce fire safety requirements through inspections leading to possible charges under the *Act*.
3. **Emergency Response** – If the first two lines of defence fail for whatever reason, the community, through its fire department, should be prepared to respond in an efficient and effective manner to put the fire out and/or mitigate the emergency itself. By evaluating the effectiveness of the fire stations, staff, and equipment, this report will be able to make recommendations for related efficiencies.

In conjunction with the three lines of defence, a key industry standard that outlines goals and expectations for a fire department is the NFPA. These standards are not mandated but form the foundation of the fire services recommended best practices. These NFPA standards are also utilized by organizations such as the FUS group to conduct their assessments of a fire department and the community. The Provincial Fire Marshal Offices and Provincial fire schools also use them to form the foundation of their evaluation and training related programs.

2.2 National Fire Protection Association (NFPA) 1201

In 2013, the Province of Ontario adopted a move to the NFPA Standards and away from the Ontario Fire Service Standards. To assist with EM&T's review and recommendations, reference has been made to a key NFPA standard that identifies the services that should be offered and how they are to be delivered based on the composition of a fire department.

National Fire Protection Association Standard 1201 – Standard for Providing Fire and Emergency Services to the Public

Section 4.3.5 notes:

- The Fire and Emergency Services Organization shall provide customer service-oriented programs and procedures to accomplish the following:
    1. Prevent fire, injuries and deaths from emergencies and disasters
    2. Mitigate fire, injuries, deaths, property damage, and environmental damage from emergencies and disasters
    3. Recover from fires, emergencies, and disasters
    4. Protect critical infrastructure
    5. Sustain economic viability
    6. Protect cultural resources

To accomplish this, a Fire and Emergency Services Organization (FESO) must ensure open and timely communications with the CAO and governing body (Council), create a masterplan for the organization, and ensure there are mutual aid and automatic aid programs in place, along with an asset control system and maintenance program.

To provide a fire department clearer focus on what the ultimate goals for emergency response criteria are, the NFPA suggests that response times should be used as a primary performance measure in fire departments. NFPA 1720 refers to goals and expectations for volunteer fire departments and has been incorporated into the evaluation of the fire department's response and staffing needs. More discussion related to these two standards will be presented in sections 4 and 5.

2.3 Commission on Fire Accreditation International (CFAI)

The NFPA standards represent the benchmark to strive for in the fire service. Many of these standards have, to a large degree, been adopted by the OFMEM. The CFAI is recognized as the organization that has incorporated all national and local standards, which has become the model for best practices for all fire departments.

Benefits of Accreditation:

- A system for risk assessment, decision making, and continuous improvement
- A plan for sustainment and self-assessment
- Agency performance objectives and performance measures
- Verification by peers

The CFAI program revolves around 10 categories, which are:

1. **Governance and Administration** – includes such things as organizational reporting structure, establishing and regulating by-law requirements, etc.
2. **Assessment and Planning** – evaluating the organization in relation to future planning
3. **Goals and Objectives** – what are the goals of the fire service; do they have a strategic plan in place
4. **Financial Resources** – does the organization have sufficient funding in place to effectively meet the needs of internal and external stakeholders
5. **Programs** – this includes fire prevention, fire suppression, training, emergency management
6. **Physical Resources** – what is the state of the fire stations and are they located in the best location to respond to the community in a timely manner
7. **Human Resources** – staffing of the organization in all divisions and how the fire service works with the municipality's Human Resources Department
8. **Training and Competency** – review of all training programs based on what the fire department is mandated to provide
9. **Essential Resources** – this section covers such things as water supply, communications/dispatch, and administrative services
10. **External Systems Relations** – includes such topics as mutual aid, automatic aid, third party agreements, etc.

Even if a fire department chose not to seek accreditation with the CFAI, the adoption of some of their program recommended practices will assist the fire chief in comparing the fire department's present practices with those recommended by the CFAI. This could result in process improvements overall.

2.4 Strengths, Weaknesses, Opportunities, & Threats (SWOT)

The strengths and weaknesses portion of a SWOT analysis are based on an internal review that identifies what is working well, along with recognizing areas for improvement. The opportunities and

threats portion of the SWOT are related to external influences and how these influences affect the operations and response capabilities of a fire department.

2.4.1 Strengths

- Clearview benefits from having fire stations and fleet that is generally in very good condition.
- Fire prevention and code related inspections programs are in place throughout the Township.
- Training programs are being updated by the Training Officer, with oversight from the Fire Chief.
- Clearview has strong relationships with neighbouring departments and a long history of cooperative services.

2.4.2 Weaknesses

- Clearview, as with many volunteer fire departments, is becoming challenged when it comes to recruitment and retention of volunteer firefighters.
- Future growth and service demands generally increase due to an aging population, and aging infrastructure, along with an increase in vehicular traffic passing through the Township. For example, while the median age of the population in Ontario is 41.3 years, the median age in Clearview is 45.3 years, with more than 18.6% of the population being 65+. [5]
- There currently is minimal staff development programs or processes. This places greater requirement for Fire Chief/Deputy to attend all incidents.

2.4.3 Opportunities

Clearview has a group of dedicated and engaged staff. There is a significant opportunity to involve and empower staff in all aspects of the organizational development.

- Communication is often an area many fire departments require attention. This is the case with Clearview and as such there is an opportunity to enhance communications and ensure that staff know the objectives of the organization and how they can play their part in assisting in the organizational success.

[5] "CensusProfile, 2016 Census", Clearview Township, Ontario, accessed December 15, 2021, www12.statcan.gc.ca/census-recensement/2016/

2.4.4 Threats/ Challenges

- Major emergencies stressing the available volunteer suppression staffing and equipment must be considered as the community's population continues to grow and age. This is a challenge that needs to be considered by most communities in the province.
- The threat of weather patterns is a challenge for communities to deal with the so called "100-year storm". Due to changes in climate, inclement weather incidents, such as freezing rain/ ice storms, are becoming more commonplace and need to be part of the emergency response program (ERP) for each community. This change in climate conditions, along with the resulting frequency and severity of incidents, has also predicated the need for a larger response component to these emergencies.
- In 2019, the OFMEM introduced a new regulation to the *FPPA* - conducting a community risk assessment every five years.

Note: It is anticipated that firefighter training and certification regulation will be reintroduced sometime in the near future. As such, all fire departments should continue to identify this type of training as part of their present and future training programs.

All these noted challenges need to be monitored, evaluated, and reported to Council by the Fire Chief to ensure that Fire Department is meeting the needs and expectations of the community.

2.5 Focus Group Sessions

To get a complete understanding of how well CFES is meeting the needs of its staff and the community, and to assist Clearview council in making strategic decisions for the future of the community, interviews and surveys were conducted.

During the MFP process, feedback was gathered from internal fire staff which included firefighters, Administration, Training, and Fire Prevention. Additionally, the senior management team for Clearview was interviewed. Finally, Clearview councillors were interviewed individually or in small groups to ensure there was no quorum criteria triggered.

The sessions resulted in the identification of the following key points/ concerns:

- The major challenge themes for Clearview are:
    - Continuing to meet the needs of the growing community with the present set up of the fire stations, locations, equipment, apparatus, and service level expectations
    - Staffing roles, levels for both volunteer and full-time, and volunteer firefighter recruitment

- Training requirements
- Communication and team building between Fire Chief and firefighters
- Communication with Council
- Staff development and succession planning

2.6 Public Survey

Much of the information received from the public survey identified the following:

- Of the 68 responses, the majority gave positive feedback of CFES; correspondingly, approximately 32% of respondents indicated that they had received service from CFES.
- The top themes for CFES that became apparent are the timeliness of response; continued and relevant training needs to match the needs of the community; equipment needs; and cost of the service.
- The top three services that the community feels are important are:
  - Firefighting
  - Rescue (i.e., motor vehicle accidents)
  - HAZMAT response

The responses also included the desire for increased inspections and enforcement. Public education was recognized as an important aspect of CFES service level provisions. Finally, there were several comments regarding the need to consider an increased full-time, career component as the community grows. This was identified as the likely possibility due to volunteer recruitment and retention issues.

Recommendation #3: A third-party consultant be engaged to assess and provide a report that outlines communications, organizational culture change, and effective communications and dispute resolution issues, along with potential training solutions for all staff.

Rationale: *This will enhance the lines of communications within the CFES, while improving its efficiencies.*

2.7 Comparable Fire Departments

As previously noted, from 2011 to 2016 the population in Clearview has only grown by approximately 3.1%. Between 2016 and 2021 the population grew by 4.7% or approximately 700 additional

residents, to a total of 14,814.[6] Reported growth projections for the next seven years has the Township population, increasing by 6% each year, to approximately 22,880 by 2029. As such, it is anticipated that call volumes will increase, especially medical responses due to an aging population.

To assist with the planning process, a fire service may look at other comparable fire services within its own region to help identify similarities and possible shortcomings in structure, staffing, and equipment. In completing this type of review, the Fire Chief and Council must be aware that no two communities are identical; each community has its own unique challenges due to demographics, topography, and percentage of residential, commercial, and industrial areas, along with transportation and road network challenges.

Table #1 provides a general overview of comparable communities and fire departments, and their staffing levels and type, along with call volumes for each fire department.

[6] Statistics Canada. 2022. (table). "Census Profile. 2021 Census of Population." Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released April 27, 2022, https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E.

TABLE #1: Fire Department Comparables & Population Ratio

Municipality	Population Served (2021 Census)	Community's Geographical Area	# of Stations	Firefighter Staffing Volunteer and Full-time	Fire Service Agreements in Place	Annual Incidents (Including Medical)	Firefighter to Population Ratio
Clearview	14,814	556.37 km²	5	90	7	800	164
The Blue Mountains	9,390	284.65 km²	2	8 FT, 20 vol	3	300+	391
Township of Brock	12,567	422.64 km²	3	2 FT, 1 PT 79 VFFs	4	350	155
Meaford	11,485	587.57 km²	1	2 FT, 34 VFFs	1 with Inter Township Fire Department and 1 with Georgian Bluffs	200+	319* Does not factor ITFD covering 50% of land mass
Perth East	12,595	711.93 km²	3	68 VFFs	No data supplied	No data supplied	185
Centre Wellington	31,093	409.41 km²	2	4 FT, 60 VFFs	1 mutual aid, 5 other agreements	No data supplied	485

Municipality	Population Served (2021 Census)	Community's Geographical Area	# of Stations	Firefighter Staffing Volunteer and Full-time	Fire Service Agreements in Place	Annual Incidents (Including Medical)	Firefighter to Population Ratio
Woolwich	26,999	326.56 km²	6	150 VFFs	No data supplied	No data supplied	179
Uxbridge	21,556	420.52 km²	1	2 FT, 30 VFFs	6 agreements	400	673
Strathroy-Caradoc	23,871	270.86 km²	3	78 VFFs,	2	250	306
Scugog	21,581	474.38 km²	2	58 VFFs, 5 FT, 2 PT	4 agreements	452	342

As illustrated in TABLE #1, there is a range in ratios of population versus staffing between the communities surveyed. No definitive conclusion or recommendation can be drawn from this comparison. This data simply offers a snapshot of information which can be used to identify whether Clearview is in a similar situation relating to call volumes, population versus staffing, and composition of the service. Based on the fire departments surveyed, the CFES employs a similar staffing level to most of the other comparable municipalities.

It is anticipated that call volumes will increase in stride with the population increase. The current call volume is 800 calls per year (2021) or approximately 53 calls per 1,000 population. Considering a consistent growth pattern, this would mean that CFES would grow to approximately 1,200 calls per year as the population grows to the expected 22,880 by 2029. Given the seasonal population forecasted growth, it can be expected that call volume will rise, particularly in the summer months.

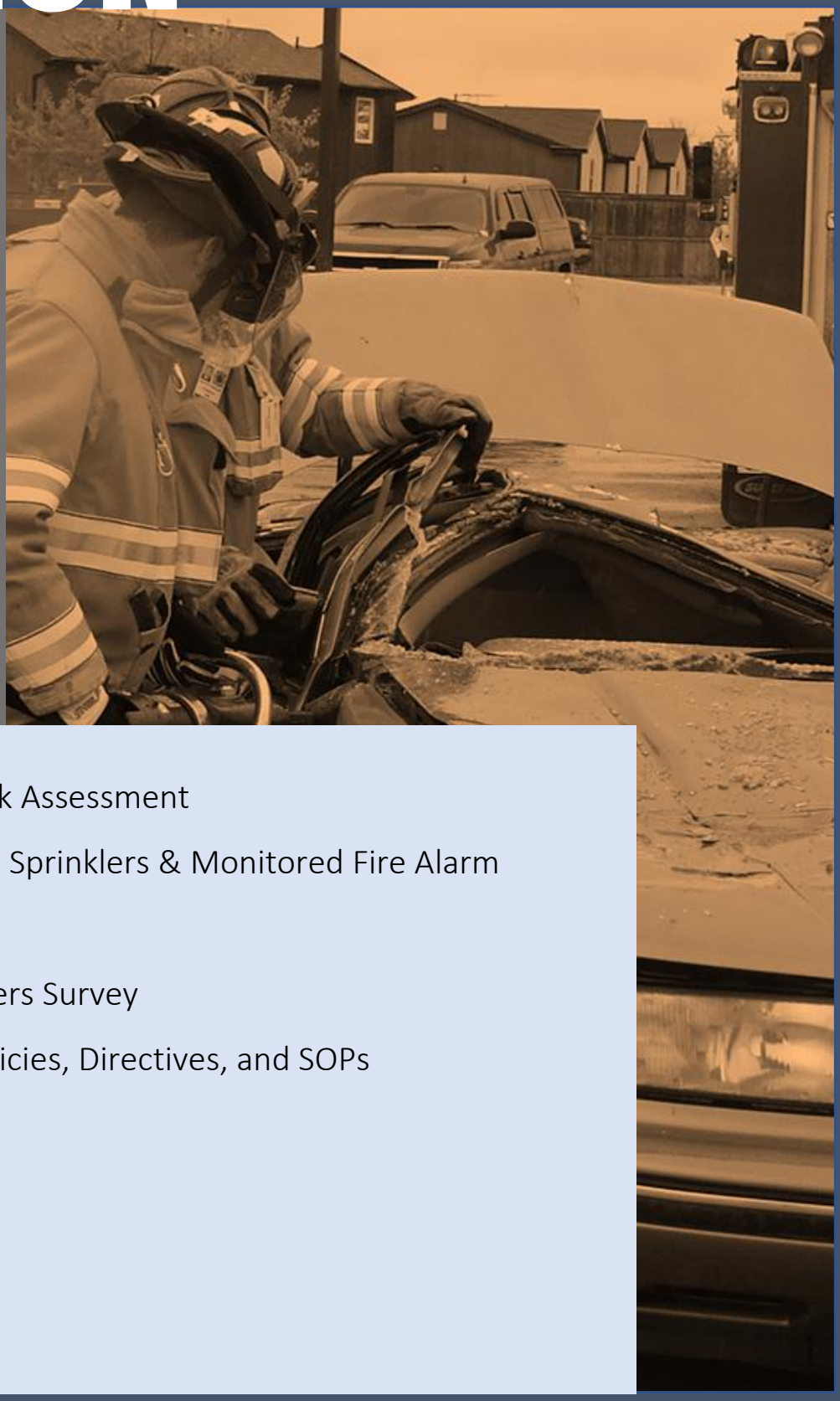
In relation to cost of fire services for a community, based on data provided to EM&T, Clearview is in the middle of cost per household of the municipalities listed. The top end is $496 per household, whereas Clearview is at $313 per household. This is a very positive reflection on CFES and the level of service it provides to the community of Clearview in a cost-effective manner when all factors are considered, such as the number of fire stations, apparatus, and personnel.

TABLE #2: Comparable Funding of Fire Services

Municipality	Number of Households	Total Taxable Assessment	Total Fire Expenses	Per Household	Per Million of Assessment
Chatsworth	4,308	$1,052096,192	$328,822	$76	$313
Georgian Bluffs	5,202	$1,840,873,856	$752,098	$145	$409
Grey Highlands	5,567	$2,296,094,720	$805,374	$145	$351
Meaford	5,840	$1,904,972,800	$897,141	$154	$471
West Grey	5,899	$2,092,400,128	$1,065,782	$181	$509
Hanover	3,642	$738,694,016	$662,253	$182	$897
Southgate	2,750	1,287,178,112	$585,307	$213	$455
The Blue Mountains	7,962	$4,226.585,344	$1,816,678	$228	$430
Clearview	**6,328**	**$2,714,762,752**	**$1,983,641**	**$313**	**$731**
Wasaga Beach	13,358	$4,221,760,512	$4,386,478	$328	$1,016
Springwater	8,190	$1,379,728,128	$1,921,644	$350	$1,393
Collingwood	11,854	$4,354,736,640	$5,290,868	$446	$1,215
Owen Sound	10,304	$2,017,571,328	$5,108,151	$496	$2,532

SECTION 3

Risk Assessment



SECTION 3: RISK ASSESSMENT

3.1 Community Risk Assessment

The most effective ways to reduce injuries, death, and property damage due to fire is through public education, inspections, and enforcement. The Fire Prevention Program addresses these key components of fire safety which starts with conducting a CRA.

3.1.1 Community Risk Assessment Profile

Risk assessment is the process utilized to identify the level of fire protection required within the boundary of the municipality. It is a means of measuring the probability and consequence of an adverse effect to health, property, organization, environment, or community, as a result of an event, activity, or operation.

Council has the authority to establish the level of fire protection within their municipality. The Fire Chief is responsible for informing Council of all risks existing within Clearview. Based on this information Council can then make an informed decision on the level of service to be achieved.

The Province of Ontario Regulation 378/18 CRA states, "a community risk assessment is a process of identifying, analyzing, evaluating and prioritizing risk to public safety to inform decisions about the provision of fire protection." Effective July 1st, 2019, the regulation states that every municipality shall complete a CRA by 2024 with renewal to occur every five years, thereafter. The municipality is also required to review the document annually.

There are two basic risk categories associated with the fire service – **operational risk** and **organizational risk**. Operational risk is the responsibility of CFES to determine the risks within its community and plan strategic, tactical, and task orientated plans to mitigate incidents. Organizational risk is a function and responsibility of Council to determine the disciplines, level of service, staffing, stations, and approval of the department business plan based on the overall risk assessment of the municipality.

The accumulation and analyzation of these factors will assist in applying this information to identify potential risk scenarios that may be encountered. It is during the assessment of the information gathered, which includes the likelihood of these scenarios occurring and subsequent consequences, that will assist in answering the following questions:

- What could happen?
- When could it happen?
- Where could it happen?

- Who could it happen to?
- Why could it happen?
- How likely could it happen?
- How bad would it be if it happened?
- What can be done to mitigate or prevent any or all the above?

Once these questions are answered, they will frame the basis for formulating and prioritizing risk management decisions to reduce the likelihood of these incidents from occurring and to mitigate the impact of these incidents when they occur.

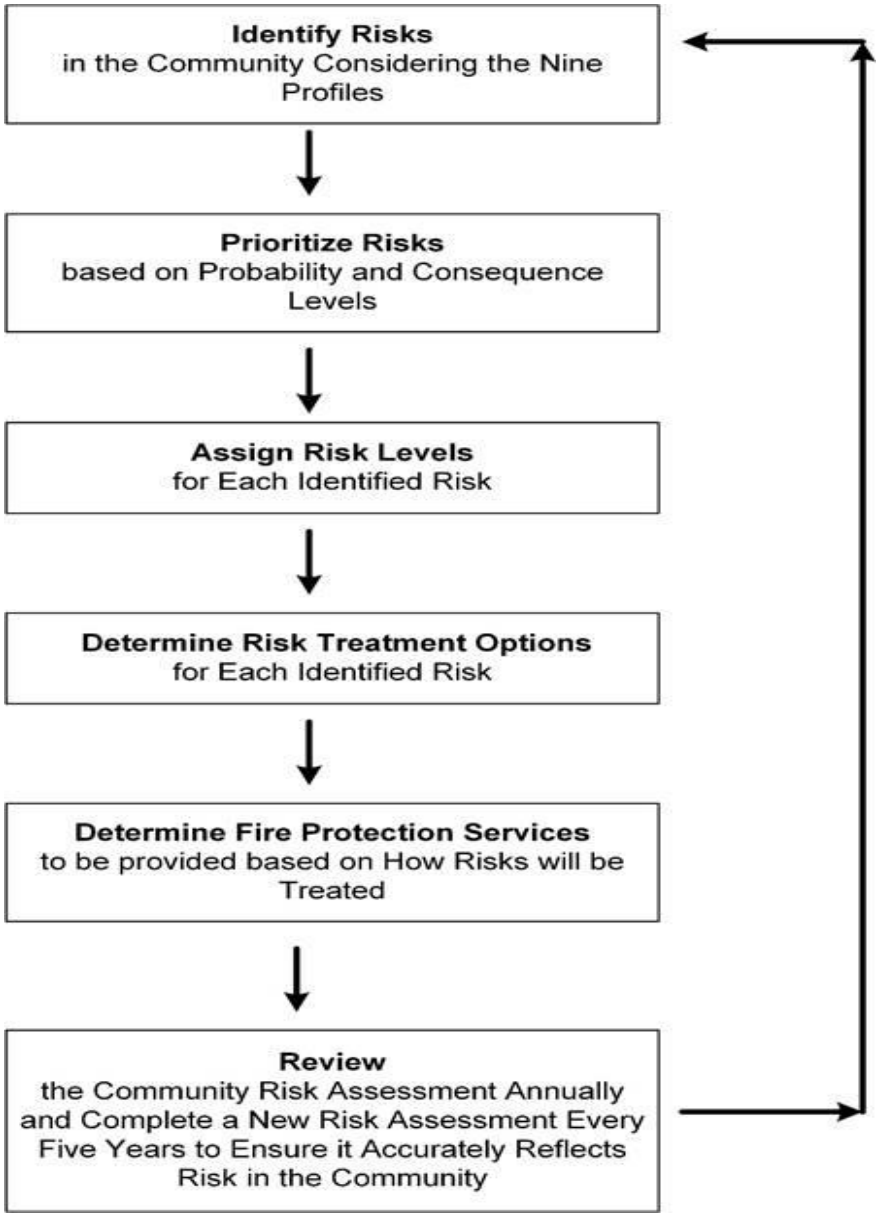
Once gathered, this information will assist in the completion of the CRA, which may identify gaps and areas where actual conditions vary from the desired outcomes. Data to be reviewed for each mandatory profile include:

- *Demographics Profile* – age, gender, educational attainment, socioeconomic makeup, vulnerable individuals or occupancies, transient population, ethnic and cultural considerations.
- *Critical Infrastructure Profile* – the facilities and services that contribute to the interconnected networks, services and systems that meet vital human needs, sustain the economy, and protect public safety and security.
- *Geographic Profile* – waterways, highways, canyons and other landforms, railroads, wildland-urban interface, bridges, and other specific features of the community.
- *Building Stock Profile* – potential high-risk occupancies, whether residential, commercial, or industrial, building density, building code classifications, age of the structure(s), occupancies that could be a high life safety risk, historic buildings.
- *Public Safety Response Profile* – how are resources distributed within the community, their deployment and usage, types of incidents responded to and the frequency of such incidents including the seasonal variations and time of day.
- *Community Service Profile* – existing planning and zoning committees, schools, seniors' organizations, ratepayers' associations, mental-health organizations, faith-based groups, cultural/ethnic groups.
- *Hazard Profile* – be they human, technological, or natural hazards.
- *Economic Profile* – infrastructure, local employers and industries, institutions, community's tax base, local attractions.

- *Past Loss/Event Profile* – consideration to the impact and frequency of an event; identify large acute events which have a low frequency but a high impact, or small chronic events which have a high frequency with a low impact.

In the interpretation phase of the data collected for the nine profiles, only matters that are relevant to fire protection services are considered. The following flow chart, as outlined in OFMEM Regulation 378/18, outlines the process whereby risks are to be identified from past events while also reviewing future growth trends within the municipality relating to demographics and building stock.

FIGURE #4: Community Risk Assessment Flow Chart



The probability or likelihood of a fire occurring within a community is estimated based on previous occurrences and the frequency of such events. It is this review of previous events, including the fire loss data, learning from what may have occurred in other jurisdictions, and discussions with those who may have been in attendance of the event, that will assist is laying a baseline for evaluation. The judgement of professionals with such experiences must not be missed during this process and may paint a more in-depth picture of what may have occurred.

These evaluations are based on five levels of probability as outlined in the Ontario Fire Marshals Comprehensive Fire Safety Effective Model:

Rare – Level 1

- May occur in exceptional circumstances.
- No incidents in the past 15 years.

Unlikely – Level 2

- Could occur at some time, especially if circumstances change.
- 5 to 15 years since last incident.

Possible – Level 3

- Might occur under current circumstances.
- 1 incident in the past 5 years.

Likely – Level 4

- Will probably occur at some time under current circumstances.
- Multiple or recurring incidents in the past 5 years.

Almost Certain – Level 5

- Expected to occur in most circumstances unless circumstances change.
- Multiple or recurring incidents in the past year.

When an event occurs, whether minor or major in intensity, what are the consequences of it? The use of professional judgement and review of past events are important means for establishing the quantification levels. To establish this level, four components are to 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 loses associated with income, business closures, 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 consequences are categorized according to 5 severity levels.

- Level 1 – Insignificant – no or insignificant consequences to life safety, value of property loss, impact on the local economy or the general living conditions.
- Level 2 – Minor – potential life safety risk to occupants is low, minor property loss or disruption to business or general living conditions.
- Level 3 – Moderate – a threat to life safety of occupants, a moderate loss of property, the threat to loss of business or could pose a threat to the environment.t
- Level 4 – Major – large dollar loss with significant property loss, large threat to local commerce and tourism, impacts the environment that would result in short term evacuations.
- Level 5 – Catastrophic – 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.

The different levels of treatment risks are:

1. **Avoid the Risk** – *implementation of programs to prevent fires or emergencies from occurring.*
2. **Mitigate the Risk** - *Programs and initiatives implemented to reduce the probability and/or consequences of a fire or emergency.*
3. **Accept the Risk** – *after identifying and prioritizing a risk, it is determined that there are no specific programs or initiatives to be implemented to address this risk.*
4. **Transfer the Risk** – *the fire department has chosen to transfer the impact and/or management of the risk to another organization or body or outside the agency.*

Recommendation #4: The Township of Clearview and the CFES complete a CRA prior to the 2024 requirement of the OFMEM.

Rationale: *This would ensure compliance with the OFMEM regulation requiring all municipalities complete a CRA by 2024.*

3.1.2 Township of Clearview Community Risk Statistics

The following information was obtained from the fire department, supplied by the OFMEM, as well as documents received and taken from the past reports supplied to EM&T. The data offers an overview of the areas of concern within Clearview. For ease of review, the data has been listed from the highest to lowest level of concern. This information will assist the Fire Chief and staff with fire prevention and public safety awareness initiatives.

Fire Loss by Occupancy Classification

The analysis indicates that between 2015 to 2020, on average, approximately 69% of the fires reporting a loss occurred in Group C - residential occupancies.

Municipality of The Township of Clearview, Fire Loss by Property Classification

Based on the information received, the following building classifications for property loss are noted in order of occurrence type:

- Group C – Residential occupancies
- Structures/Properties not classified by OBC
- Classified under National Farm Building Code
- Group F - Industrial occupancies
- Group E - Mercantile
- Group A – Assembly occupancies
- Group B – Care and Detention

Municipality of The Township of Clearview, Reported Structure Fire Cause

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

The leading causes of structure fires were:

- Misuse of ignition source/material first ignited
- Mechanical/Electrical Failure
- Other unintentional
- Undetermined
- Arson
- Vandalism
- Children Playing
- Vehicle Collision

- Design/Construction/Maintenance deficiency

Municipality of The Township of Clearview, Ignition Source Class

The leading causes for ignition sources were:

- Open flame tools, smoker's articles
- Electrical distribution equipment
- Heating equipment, chimney, etc.
- Miscellaneous
- Other Electrical / Mechanical
- Undetermined
- Cooking equipment
- Appliances
- Lighting Equipment
- Exposure
- Mechanical/Electrical failure

Several of the fires' ignition source was by an open flame tool, smoker's articles. Each year fires are caused by smoker's articles disposed of in flowerpots containing moss, which in time smolders and eventually breaks into open flames. There also were several undetermined fires in Clearview. The Fire Chief and fire prevention should monitor these cases in the event additional resources are required in determining causes and ignition sources, such as supplemental training and the use of outside resources. These resources include the OFMEM, OPP, Electrical Safety Authority (ESA), and third-party investigators in conjunction with insurance companies.

To assist CFES in its fire safety goals, it is recommended that the Department staff meet with relevant local community groups to form a partnership for organizing fire safety and public education events that can be tailored to the unique needs and challenges within the community. These events can be based on the previous fire cause information supplied. An example of community groups would be a local group that wish to promote fire safety in the community or any local Lions Clubs (or other clubs) that want to support fire safety initiatives.

In 2016 the "Targeted Residential Fire Risk Reduction"[7] report was released. This report was prepared by Len Garis, Sarah Hughan, and Amanda McCormick through the University of the Fraser Valley

[7]Research Gate, "Targeted Residential Fire Risk Reduction a Summary of At Risk Areas in Canada," June 2016, https://www.researchgate.net/publication/307599464_Targeted_Residential_Fire_Risk_Reduction_A_Summary_of_At_Risk_Areas_in_Canada

School of Criminology and Criminal Justice and the Centre for Social Research. The focus of the report was based on previous studies in England, Scotland, Sweden, and Norway. Those reports found that targeted home visits for public education efforts produced "promising results". By shifting public education efforts by way of door-to-door campaigns away from an entire community and towards identified at-risk households, not only are the campaigns more efficient but the effectiveness has measurable outcomes. The study team reviewed the 2011 Statistics Canada Census and National Household Survey, and the numbers presented were an estimate of households and at-risk populations intended to provide an approximation. The identified five areas for "at risk" criteria:

1. Age >65
2. Age <6
3. Lone Parent
4. Unemployed
5. Mobility (movers)

The team evaluated and determined "the top 10th percentile of areas within municipalities that would be most at risk for fires to occur in their home". From this they created dissemination areas (areas which represent populations of between 400-700 persons) and focused on single-family detached dwellings. The project did not focus on residents of condominiums, apartments, or townhouses. Surrey Fire Rescue Service used this data to create a "HomeSafe" program that focused on installing smoke alarms in these identified homes.

The data shows that in the three measurable categories (At Risk Areas, Private Single Detached Dwellings, and At-Risk Population), Clearview is above averages at both the provincial and federal levels regarding Percent of At-Risk Dissemination Areas. With the anticipated growth in population and building stock, this percentage will inevitably increase, meaning more residents will be at risk. TABLE #3 details the data as sorted within the report.

TABLE #3: Clearview At-Risk Comparison

Garis et al Report Criteria	Clearview	Ontario	Canada
Number of At-Risk Dissemination Areas	6	2,630	7,198
Total Dissemination Areas	28	29,964	56,154
Percent of At-Risk Dissemination Areas	**21.43%**	**13.17%**	**12.82%**
Number of Private Single Detached Dwellings in At-Risk Dissemination Areas	1,005	501,990	1,320,785
Total of Private Single Detached Dwellings	4,605	2,712,000	7,301,825
Percent of At-Risk Private Single Detached Dwellings	**21.82%**	**18.52%**	**18.09%**
Population of At-Risk Dissemination Areas	2,843	1,420,807	3,585,822
Total Population	12,470	7,488,061	19,325,962
Percent of At-Risk Population	**22.80%**	**18.97%**	**18.55%**

When reviewing the information within the table, 21.43% of the township is considered an at-risk area for fire protection. At the same time within those areas, 21,82% of the structures located there are single family residences which equates to 22.80% of the municipality's population. It should be noted that much of the locations of concern may not be protected by CFES but by an outside fire service which may have a quicker response to protect those occupancies. These responses have been prearranged under automatic aid / response agreements that are in place. Doing so is a proactive approach to ensure fire protection is in place to protect the entire township.

Based on this data, it would benefit Clearview to focus its limited resources on targeting its public education campaigns. The FPO/ Public Fire & Life Safety Educator (PFLSE), would be able to concentrate public education programs where they are needed most, and better prioritize program scheduling. Priority should be placed on providing fire safety messaging in the form of home inspections and fire safety literature, to areas furthest from a fire station.

The data used in the Garis et al report is nearing ten years old; a focus on local planning data would provide a clearer picture of the current state of Clearview as it pertains to its at-risk populations. All target audience public education programs should be fluent and adaptive to the changing needs of the community. By including identification of at-risk groups, the department could better utilize available personnel resources and improve efficiency of programs. They would likely find ways to

cross reference the data and metrics obtained in other areas of fire safety (i.e., tracking fire calls with areas targeted public education).

NFPA 1730 defines the risks in three categories and provides examples for each. These risk categories are:

- High-Risk Occupancy – An occupancy that has a history of high frequency of fires, or high potential for loss of life or economic loss. Alternatively, an occupancy that has a low or moderate history of fire or loss of life, but the occupants have an increased dependency in the built-in fire protection features or staff to assist in evacuation during a fire or other emergency (e.g., apartment buildings, hotels, dormitories, lodging and rooming, assembly, childcare, detention, educational, and health care).
- Moderate-Risk Occupancy – An occupancy that has a history of moderate frequency of fires or a moderate potential for loss of life or economic loss (e.g., ambulatory health care, and industrial).
- Low-Risk – An occupancy that has a history of low frequency of fires and minimal potential for loss of life or economic loss (e.g., storage, mercantile, and business).

Conducting a review of every building within the Township of Clearview may not be practical. However, utilizing NFPA 1730 definitions of risk categories may guide Council in deciding the focus and service level within the community. Council should determine, with input from the Fire Chief, an acceptable level of risk to manage within the community based on its needs and balanced with the circumstances to deliver the services.

Once the CRA is completed and all risks are identified, then begins the process of developing a Community Risk Reduction Plan (CRRP). When properly applied, the CRRP coordinates emergency operations with prevention and mitigation efforts throughout the community and at the fire station level. Involvement of fire station personnel is critical for both gathering local risk data and performing activities necessary to implement the CRRP.

Public education is a key component of having a successful CRRP. Aside from the main benefits to the community, a CRRP can contribute positive impacts on the fire department. A CRRP improves firefighters and emergency responder safety and occupational health, along with reducing line-of-duty deaths.

In addition to firefighter safety, there are several other reasons why departments should begin the process of developing a CRRP, including:

- The presence of new and emerging hazards, which makes the community safer.

- Declining budgets among fire departments and local governments, thereby better resource allocation.
- Rapidly changing community demographics.
- Community engagement.
- High-risk residents tend to remain underserved.
- May avoid potential ramifications of hazards that were ignored or not fully addressed.
- Better defines the fire department's purpose and value within the community, beyond just fighting fires.

A CRRP is not just a fire prevention initiative, it is for the benefit of all members of the fire department. As such, involvement by the firefighters is suggested. There are six steps in the development of a CRRP, two of which are to be identified and completed within the CRA. These two steps are Identifying Risks and Prioritizing Risks.

Identification Risks and Prioritizing Risks – Upon the completion of the CRA in which the various community risks were identified and the priorities determined, the results should all have been documented for use in the remaining planning process. The document does not need to be complex or complicated, but in a clear and concise format that enables the reader to understand the risks and those that should have the highest priority.

During this process consider the following:

- Why and how the risk occurs and, in some cases, when.
- Who does the risk affect the most and why?
- How is the community and the fire department affected by the risk?
- What about this risk ranks it higher than others?

Develop Mitigation Strategies & Tactics – This requires input with a variety of individuals involved, including those most effected by the risk. Stakeholder involvement is paramount and should always be included in some of the decision-making processes. It will necessitate decisions to determine what tactics and strategies will be necessary to prevent and/or mitigate those risks with the highest priority.

During the development of the plan, there are five elements that should be included:

- ***Education***: Determining the appropriate type and mix of educational messaging necessary to inform the public and effect behavioural change. More encompassing education through different mediums of social media.

- ***Enforcement***: Identifying whether stronger enforcement is necessary or if newer codes and standards need adoption. Notification of the public on successful convictions through the justice system.
- ***Engineering*** – Determine whether there are engineering or technological solutions to address the identified risk(s).
- ***Emergency Response*** – Changes to the emergency response protocols, SOGs, SOPs, and policies to better meet a specific risk or need. This may require additional resources such as stations, apparatus, equipment, staffing, and/or enhanced levels of training.
- ***Economic Incentive*** – Identifying whether financial incentives will improve compliance or help increase awareness of community needs.

Prepare the CRRP – Once the risks are identified and prioritized and strategies and tactics determined for prevention and mitigation, it will be necessary to develop a written plan.

Implementation of the CRRP – The implementation of the completed CRRP usually involves several steps. The process should include timelines, which can be quick and focused or slow and methodical. The implementation may rely on the fire department, community partners, or a combination of both.

Monitor the Progress, Evaluate Your Findings & Modify the CRRP – The final step involves monitoring and evaluating the effectiveness of the plan and adjusting, as necessary. This will enable the organization to determine if they are achieving their desired goals and/or if the plan is or is not having an impact. Ongoing monitoring allows for plan modifications in a timely manner.

Having a successful CRRP will bring additional resources to the effort through partnerships within the fire department as well as the community it serves. The community-based approach increases public safety because of the collective work within the community to understand, assess, and provide inclusive solutions to community safety issues.

Recommendation #5: The Township of Clearview develop a comprehensive CRRP that falls in line with the CRA upon its completion.

Rationale: Once the CRA is completed, then CFES will begin the process of addressing the risks that were identified in the CRA. Many of which will require fire prevention's intervention.

The following are just a few of the top risks noted within the community. Some risks may impact neighbouring municipalities.

NOTE: The following features are not identified in the order of their level of risk.

Bodies of water –While the CFES currently can mitigate an ice/water rescue from shore, they are moving towards the operations level, with the equipment and training recently acquired. With very few bodies of water in the Township, several private properties have private ponds that could at some time become problematic.

Township of Clearview - New developments will bring an increase in populous and building stock**.** May see an increased demand on fire inspections and public education events. The CFES should review time spent and demands placed on the fire prevention staff which may require additional resources to meet the demand and industry standards.

Technical Rescues –Silo, Trench/ Confined Space/ High & Low Angle/ Ice Water/ Vehicle Entrapment. A formal agreement is in place with the Barrie Fire & Emergency Service (BFES) to mitigate technical rescues.

Hazardous Material Incidents – Included in the County of Simcoe Agreement with the City of Barrie.

Weather Events – Township is in the area known as Tornado Alley of southern Ontario. The surrounding areas have experienced several tornadoes over the past decade. Communities in the Province are now installing storm sirens such as seen in the United States and/or developing an alerting system.

Domestic Terrorism – Can occur in any community and include an active shooter, to sabotage of municipal infrastructure such as water treatment plants and cyber attacks. There are also industries in the Township that are at risk of experiencing some form of domestic terrorism. Use *NFPA 3000, Standard for an Active Shooter/ Hostile Event Response (ASHER) Program,* as reference in teaching public education on the subject. Provide training in co-operation with the Huronia West Detachment of the OPP in Wasaga Beach.

Building Stock / Seniors Complex – A large seniors complex of multiple floors is being built in Stayner across the street from the fire station. This complex will have varying levels of cognitive behavioral issues which could become a significant issue during a fire in the building or the need to evacuate a floor of its residents. Once the building is completed and before residency takes place, CFES should complete a pre-incident plan of the building and its many features, as well as arrange for the township's fire fighters to have a tour of the building and learn about their features, focusing on heating, ventilation, and air conditioning units, along with electrical and fire panels and shut offs for gas lines and electricity. Due to patient cognitive behaviours, they will most likely be security measures on floors that may house residents that may have behavioural problems.

Building Stock – There are currently 30 residential projects in various stages of progression in the township. Increased building stock include larger residential structures that are three storeys high.

The CFES does not have the means of reaching the roof for firefighting operations without having to call in resources from a neighbouring municipality. The Township should review the opportunity of acquiring an aerial device with a reach of at least 23 meters (75').

3.2 Residential Fire Sprinklers & Monitored Fire Alarm Systems

The NFPA, along with the OAFC, are strong supporters of residential sprinkler systems to reduce the risk to life and property from fire. In a recent NFPA online article, it was noted that because fire sprinklers react so quickly, they can dramatically reduce the heat, flames, and smoke produced in a fire. Properly, installed, and maintained fire sprinklers help save lives, reduce damage, and make it safer for firefighters.

Fire sprinklers have been around for more than a century, protecting commercial and industrial properties and public buildings. What many people do not realize is that the same life-saving technology is also available for homes, where roughly 85% of all civilian fire deaths occur.

Facts about home fire sprinklers

Unfortunately, due to the lack of Canadian statistics, we must rely on American statistics. However, since there are so many similarities in building construction, the statistics are an accurate reflection of the Canadian experience.

Automatic sprinklers are highly effective and reliable elements of total system designs for fire protection in buildings. According to an American Housing Survey, 8% of occupied homes (including multi-unit) had sprinklers in 2010-2014, up from 4.6% in 2009.

Source: U.S. Experience with Sprinklers[8]

- 85% of all U.S. fire deaths occur in the home.
- The civilian death rate of 1.4 per 1,000 reported fires was 81% lower in homes with sprinklers.
- The civilian injury rate of 25 per 1,000 reported fires was 31% lower in homes with sprinklers. Many of the injuries occurred in fires that were too small to activate the sprinkler or in the first moments of a fire before the sprinkler operated.
- The average firefighter injury rate of 13 per 1,000 reported home fires was 78% lower where sprinklers were present.

[8] "NFPA Research - U.S. Experience with Sprinklers," Marty Aherns, October 2021, accessed on January 2, 2022 https://www.nfpa.org/News-and-Research/Data-research-and-tools/Suppression/US-Experience-with-Sprinklers,.

- Where sprinklers were present, flame damage was confined to the room of origin in 97% of the fires compared to 74% of fires without sprinklers.

In 2021 some fire safety statistics[9] were released which includes:

- 40% of fire deaths happen in homes with no smoke alarm
- 17% of home fire deaths occur due to a non-functional smoke alarm.
- 25% of smoke alarm failures with a deadly outcome occur due a dead battery
- $235 million per year in property damage is caused by children starting fires
- Smoke alarms decrease the risk of dying in a home fire by 50%
- Electric space heaters are the cause of 80% of house fires with a deadly outcome
- Fire sprinklers can reduce the chance of death in homes by 80%
- According to the National Fire Protection Association, firefighters in the US respond to a fire every 24 seconds
- Fire sprinklers use less water than fire hoses
- Sprinklers activate on an individual basis
- The risk of property loss is reduced by 70% in homes with sprinklers

The Home Fire Sprinkler Coalition (HFSC) is a leading resource for accurate, non-commercial information and materials about home fire sprinklers for consumers, the fire service, builders, and other professionals.

By working with the developers and the public in promoting the installation of home sprinkler systems, the CFES would be demonstrating a pro-active approach to educating the public on another viable option for homeowners to help reduce the risk in the event of a fire. CFES should be initiating discussions with developers on the advantages of installing residential sprinkler systems. As such, it is recommended that CFES promote this safety initiative as part of their fire prevention and public education initiatives.

Presenting a demonstration at community events by the CFES would assist in driving the safety factor of having sprinklers in the home. There are demonstration trailers available for sprinkler

[9] "Safeatlast - The Latest Fire Safety Statistics - Stay Safe in 2021," Published, January 30, 2021, accessed on December 21, 2021 https://safeatlast.co/blog/fire-safety/

presentations for the CFES to acquire. A practical demonstration identifying the advantages of sprinklers, will provide a very graphic visual image of their effectiveness.

During the building approval process, information should be made available to the applicants on the installation of residential sprinklers, especially to those applicants that are not part of a development and are of a higher value than most other residences. Clearview has seen an increase in high end renovations and new builds.

Another key component to saving lives and property is early fire detection and monitoring. If the residents are not at home when a fire occurs, it may be some time before it is noticed and reported to the fire department. By that time, there could be significant fire involvement resulting in high property loss. The continuous monitoring of a fire alarm system by a third-party, will ensure constant surveillance of alarms systems and the prompt notification of an alarm to the fire department.

Having a residential fire sprinkler system and fire monitoring system in place will enhance the level of protection within a home.

Another consideration to heighten the level of fire protection is the installation of a cistern that would contain a large amount of water or dry hydrants, when a water source is close by such as ponds. By having either of these on site, the property owner may be a candidate for lower insurance premiums.

Recommendation #6: CFES to work in conjunction with residential developers in promoting the advantages of installing residential fire sprinklers.

Rationale: It is easier and financially feasible to install sprinklers during the initial building of the residence, thereby making it a safer home in the event of a fire as the sprinklers will control the fire as the resident(s) escape.

3.3 Fire Underwriters Survey

The FUS is a national organization that provides data on public fire protection for fire insurance statistical work and underwriting purposes of subscribing insurance companies. Subscribers of FUS represent approximately 85%[10] of the private sector property and casualty insurers in Canada.

FUS Certified Fire Protection Specialists conduct detailed field surveys of the fire risks and fire defences maintained in built up communities including incorporated and unincorporated communities of all types across Canada. The results of these surveys are used to establish a Public Fire Protection Classification (PFPC) for each community. While the FUS is not involved in setting rates, the

[10] "Who We Are", The Fire Underwriters Survey, retrieved January 13, 2022, https://fireunderwriters.ca/

information provided through the Fire Insurance Grading Index is a key factor used in the development of commercial lines property insurance rates. The PFPC is also used by Underwriters to determine the amount of risk they are willing to assume in each community or section of a community.

The overall intent of the PFPC system is to provide a standardized measure of the ability of the protective facilities of a community to prevent and control the major fires that may be expected to occur. This is done by evaluating, in detail, the adequacy, reliability, strength, and efficiency of the protective facilities and comparing the level of protection against the level of fire risk in the built environment.

The FUS also uses PFPC information to develop the Dwelling Protection Grade (DPG), which is utilized by Personal Lines insurers in determining property insurance rates for detached dwellings (with not more than two dwelling units). The Dwelling Protection Grade is a measure of the ability of the protective facilities of a community to prevent and control the structure fires in detached dwellings by evaluating the adequacy, reliability, strength, and efficiency of the protective facilities and comparing the level of protection against the level of fire risk associated with a typical dwelling.

The fire insurance grading system used does not consider past fire loss records but, rather, fire potential based on the physical structure and makeup of the built environment. When a community improves its PFPC or DPG, insurance rates may be reduced, and underwriting capacities may increase. Every insurance company has its own formula for calculating their underwriting capacities and insurance rates, however, the PFPC and DPG classifications are extremely useful to insurers in determining the level of insurable risk present within a community.

3.3.1 Current Fire Underwriters Survey

Fire Insurance Grades are established by FUS to reflect the ability of a community to prevent, control and mitigate probable commercial, industrial, and residential fire risks. To complete this task, the specialists at FUS perform a detailed analysis of the overall fire protection by adding four key areas: fire department, water supplies, fire prevention, and emergency communications. The CFES underwent an assessment by the FUS in 2018.

The PFPC is a numerical grading system scaled from 1 to 10. Class 1 represents the highest grading possible, and Class 10 indicates that little or no fire protection is in place. The PFPC grading system evaluates the ability of the community's fire protection programs to prevent and control major fires that may occur in commercial or industrial risks. In Clearview's case they graded between 5 and 10 within the 5 built up areas as well as the rural areas.

The DPG is based on a scale of 1 to 5, with 1 being the best. This grading reflects the ability of a community to handle fires in smaller structures such as detached single-family dwellings. The CFES achieved a mid-range ranking for all areas served by fire hydrants, with rural areas served by five fire stations receiving lower grades due to the absence of fixed water supply provided by hydrants.

Historically, community assessments were conducted by FUS on a predetermined basis, varying from 10 to 25 years. Best practice and changing industry standards suggest that moving to a grade update every five years would better reflect ongoing changes to fire protection and communities at large. The FUS has also introduced the FUS Municipal Fire Portal that would provide CFES the ability to access and update data relevant to both municipalities and forward updates in a timely fashion. By accessing this system regularly, the CFES can provide frequent updates from which FUS Specialists will analyze and publish grade updates as deemed necessary. It is recommended that the Fire Chief, Deputy Fire Chief and the FPO/ PFLSE regularly access and provide input to the FUS Municipal Fire Portal.

While CFES has had a survey completed, it was not available for EM&T to review. CFES should contact FUS to obtain a copy of their last survey, and if it has been over five years since the last one, the department should arrange for a new survey to be completed.

Recommendation #7: The CFES management team regularly access the FUS Municipal Fire Portal to communicate improvements and/or updates. This data could relate to new fire apparatus replacements, new fire stations, new construction, hydrants in new sectors, etc.

Rationale: *Accessing this portal will allow CFES to make updates to the survey on an ongoing basis, such as new apparatus, staffing, etc., which could be reflected in lower insurance rates.*

3.4 Fire Service Policies, Directives, & Standard Operating Procedures

Fire department policies and guidelines have enormous value for a department. In fact, they can be seen as the foundation to a department's success. The backbone of any fire service is its policies, standard operating procedures (SOPs) and standard operating guidelines (SOGs), which govern and provide direction on its operations.

- **A policy** is a high-level statement that expects consistent compliance. There is very little to no leeway permitted with a policy.
- **A guideline** is a standard with an acceptable level of quality or attainment on how to act in each situation with non-mandatory controls.
- **A procedure** is a standard with an acceptable level of quality or attainment in a series of detailed steps to accomplish an end. There are step-by-step instructions for implementation.

CFES has named their directives SOPs. Doing so leaves little room for decisions to be made by the IC or station officers based on current conditions or circumstances. Dependant upon the situation, the officer does not have the ability to alter a policy based on good judgement. This is why many departments have moved to SOGs instead of SOPs. The guidelines allow for more flexibility.

CFES's SOPs, are numerous, encompassing, and thorough. To ensure all the SOPs are current, the Deputy Fire Chief should review and revise existing policies and SOPs regularly and develop new policies and SOPs as required. For example, some fire departments review a third of the SOPs annually so that the entire document is reviewed every three years. Many SOPs have not been updated since 2014. A couple of areas are lacking SOPs, namely, the training section. This is a very important section for the health and safety of firefighters. The other section is Fire Prevention where no SOPs have been developed. SOPs are also lacking on Technical Rescue Procedures and Bunker Gear Cleaning.

The review of the SOPs is a very involved process. Establishment of a structured SOP Committee that creates its own Terms of Reference would be a great asset to the Department in many ways; the SOPs would be updated, and staff are more involved in the Department's operations. The SOP committee could meet on an as required basis to develop new SOPs and review older ones.

For a fire department to operate in a safe and efficient manner, it is imperative that all members adhere to all policies, SOGs, and SOPs and those that fail to do so should be held accountable.

A good source of information in the development of SOGs and SOPs is the Section 21 Guidance notes that are kept current by a provincial team of fire service personnel. The Section 21 Committee is part of the *OHSA* initiative for firefighter safety. In some cases, the applicable NFPA Standards should be referenced.

The health and safety of the firefighters is paramount and therefore it is important to maintain an active joint Health & Safety Committee. It was noted that the Township's Joint Health & Safety (JH&S) Committee meets frequently as required under the *Occupational Health & Safety Act. (OHSA)* but lacks representation from the rank and file of the fire service.

To the administration's credit, a committee was formed in the past and due the lack of participation from the firefighters resulted in the committee's disbanding. CFES should re-establish this committee and see if the level of participation increases. Those invited to be a member of the committee, if it is reinstated, should realize this is an opportunity to help provide (health and safety related) direction on the operations of CFES.

If CFES choose to rename their SOPs as SOGs, there are some that cannot be an SOG due to the lack of leeway permitted in their interpretation. These include any that involve attendance, behaviour,

code of conduct, discipline, and any that are a Health & Safety concern such as the wearing of bunker gear and the wearing of seatbelts.

The *OHSA* specifies that some members of the committee are to be certified at the two levels of health and safety certification, minutes of meetings are to be posted, workplace inspections are to be completed and Safety Data Sheet (SDS) binders are to be made available and updated. The CFES has H&S Boards in the stations along with SDS binders.

Recommendation #8: CFES's SOPs be renamed as SOGs thereby allowing for the IC and Officers to make decisions based on their good judgement and the circumstances before them.

Rationale: Renaming them will allow some leeway during the decision-making process at an incident, provided the IC can substantiate these decisions. Some SOPs cannot be changed into SOGs due to their content.

Recommendation #9: An SOP Committee be re-established with representation of all divisions of the Department. It is further recommended that the Department's SOGs be reviewed annually and be updated to meet current industry standards.

Rationale: There was an SOG committee that lacked participation. It is worth while to re-establish the committee to gauge if interest is there to participate and to share the workload, while providing direction on the operations of CFES.

Recommendation #10: CFES to re-establish JH&S Committee specific to the needs of the fire service, in accordance with the Occupational Health & Safety Act of Ontario.

Rationale: The current JH&S Committee in the township is a generic committee for the entire township. Due to intricacies of the fire department and their operations, the CFES should re-establish their own committee that reflects direction from several regulations, guidance notes, and legislation.

SECTION 4

Fire Department Divisions (Non-Suppression)

SECTION 4: FIRE DEPARTMENT DIVISIONS – NON-SUPPRESION

The RFP for the Clearview MFP required that EM&T review and make recommendations regarding the suppression and non-suppression services of the Department. This section will address the non-suppression services, including:

- **Administration** – Human Resources – review and make recommendations regarding fire department staffing including full-time and volunteer/part-time firefighters. Examine and review firefighter recruitment, retention, promotional process, succession planning and demographics. This includes reviewing applicable job descriptions.
- **Fire Prevention** – review program and make recommendations regarding fire prevention, inspections, investigations, and public education.
- **Training and education** – review program and make recommendations.

Suppression will be covered in detail in Section 5.

When considering the overall staffing needs for CFES, some of the key questions that should be considered are:

- Is there a proper level of senior staff to manage the Department, its divisions, and fire stations?
- Is there adequate administrative or management staff to effectively deal with such things as records management and addressing day-to-day operations of the Department?
- Is there a need for other support staff in relation to vehicle and facility maintenance?
- Is there a time when the Department should consider migrating from a volunteer service to a composite or full-time service?

4.1 Administration

The Administrative Division is composed of a full-time Fire Chief, a full-time Deputy Chief, and a part-time Administrative Assistant, who will become full-time in March 2022. When reviewing a department's administration division, the CFAI accreditation program has a specific section that evaluates the administration component of a fire department.

While the Fire Chief and Deputy Chief have been managing the basic administrative and operational needs of the Department, they are challenged to meet the daily demands of departmental forecasting, staff development, HR related matters, strategic planning, and the necessary senior staff and Council interaction on a corporate level. The Fire Chief and Deputy Fire Chief also are active in responding to all emergency calls. As such, to assist the Fire Chief and Deputy in responding to calls, EM&T is recommending the utilization of a senior officer from current suppression ranks to act as a

Platoon or District Chief on a trial basis until such time as a permanent position is created. This position and role responsibilities would have the benefit of not only relieving the Fire Chief and Deputy Chief of attending all calls, but also create a staff and organizational development opportunity.

One of the responsibilities of the Administration team, is records management. The fire service records are critical to meeting the organization's core business needs while supporting the effective delivery of fire protection services. An all-encompassing record management system should:

- Be based on the main divisions or functional areas of the fire department.
- Is supported by corporate and departmental policies and SOGs/SOPs.
- Identifies the location of records and the methods used in securing them.
- Identifies the levels of authority, and who has access to the records,
- Who in the fire department is responsible for managing the records,
- When (retention timeline), which ones, and how records may be disposed of and
- Defines the back-up process and frequency for the records as many are computer based, while hard copies are commonly still in use.

Recommendation #11: CFES to utilize a senior officer from the current suppression ranks as a District or Platoon Chief on a trial basis.

Rationale: *Will expose this candidate to a senior management position as part of the succession planning of the department. Expectations and performance in the rank of an officer is an area that needs addressing if CFES is going to evolve and grow with the community. The rank of District or Platoon is suggested simply to provide the expectation and recognized authority in the chain-of-command organizational model.*

4.2 Fire Prevention & Public Education

Fire prevention and public education are the foundation to creating a safe community and this should be the initial focus of a fire service to create an effective, manageable program. EM&T has conducted a review of the existing fire prevention program, identifying strengths, gaps, and areas for growth and improvement.

NFPA 1035 Standard on Fire and Life Safety Educator, Public Information Officer, Youth Fire Setter Intervention Specialist and Youth Fire Setter Program Manager Professional Qualifications (3.3.11) identifies fire and life safety education as a *"comprehensive community fire and injury prevention program designed to eliminate or mitigate situations that endangers lives, health, property, or the environment."*

Public education, combined with Fire Safety Standards and Enforcement, are the most effective methods of reducing injuries and death associated with fires and associated emergencies. Unfortunately, very little data was available for EM&T to review as the FPO/ PFLSE has been off on sick leave for some time. The Fire Chief did confirm that there is an annual inspection and public education program in place.

The CFES Fire Prevention Division is staffed with one full-time FPO/PFLSE that reports to the Fire Chief, who oversees all prevention and education activities and sets overall program goals. The Fire Prevention Division manages all community outreach and data analytics. Unfortunately the FPO/PFLSE has been off duty on long term illness and wasn't available during the review of the Fire Prevention activities.

Building development plans are examined and reviewed by the FPO/PFLSE, but for the most part the Building Department is responsible for the plans examinations.

The school program includes public education at elementary and high schools in Clearview. Topics discussed include smoke and CO alarms, escape planning, fire safety in the home, Stop, Drop, and Roll, Learn Not to Burn, and kitchen safety along with the required fire drills. CFES has a great working relationship with the many businesses in the township and some of these stakeholders showed interest in sponsoring some contests that the school-aged children could participate in such as a fire safety poster contests or recording their family practising their home escape plan. It is the school-aged children that help drive fire safety messaging within the home, and it is important to continually engage this age group in understanding the importance of fire safety. In 2022 the department received 2,500 fire safety bags, that were made possible by donations of the stakeholders of Clearview. CFES has also began a home escape plan contest and is constructing a bedroom escape trailer in additions to the Fire Chief for a day contest.

Engaging with the public is a priority of the FPO to get the fire messaging out. They have engaged the public at club meetings and community events such as at seniors' activities. When making a presentation to a senior's group, many topics are discussed/actioned ranging from conducting a fire drill, what to do when a fire, smoke, or CO alarm is activated, and safe cooking with specific groups receiving specific information based on the audience.

Short-Term Accommodations

As with many communities in Ontario, Clearview is finding an increase in attempts to open short-term accommodations (STA). The Zoning By-Law specifically stats that STAs are not permitted in the Township, and they actively enforce the by-law to the point that subdivision agreements include stipulations that STAs are not permitted. Bed and Breakfasts are permitted under the same by-law and requires the owner to live on-site and limits the number of bedrooms.

Some owners may circumvent the Zoning By-Law and illegally open an STA. These individuals may not be very conscious of fire safety regarding requirements and their responsibilities as an operator of these dwellings. How many are currently operating in Clearview is unknown.

Another area of concern is dual occupancies in one residential structure which are also known as second units. Many involve basement apartments that may not meet OFC standards. It is unknown how many are in operation in Clearview. The owners/operators may not have proper smoke and/or CO alarms, lack fire extinguishers, lack a direct exit out of the structure or have windows that are too high and small for a person to escape through. Fire deaths have occurred from people residing in basement apartments that do not meet the OFC, and they are unable to escape when a fire occurred. Some municipalities have resorted to establishing a "reporting line" for citizens to report possible illegal second units.

Vulnerable Occupancies

The Township of Clearview has nine vulnerable occupancies (e.g., nursing homes, retirement homes, group homes, etc.). These should be considered high-risk structures that require constant monitoring by the FPO; seven are in Stayner with additional occupancies in both Creemore and Nottawa. Clearview is meeting the legislated requirement that these occupancies be inspected annually which includes conducting fire drills and fire extinguisher training.

Unfortunately, with the lack of information available it is difficult to ascertain the success of CFES' Fire Prevention & Public Education programs. The Fire Chief and Deputy Fire Chief have stepped into the role of FPO in the interim. They have NFPA 1031 and 1035, but when they are performing their primary duties, it is very difficult to manage the responsibilities of the FPO simultaneously. As such, the Fire Chief should promote the idea of hiring a third-party under a temporary contract to complete the fire inspections and public education until such time as a decision on the full-time position is made.

With the increased demand for public education, and the FPO/PFLSE not available, other opportunities of meeting the needs of public education, should be considered. These include, CFES reviewing the opportunity, to increase their public education outreach within the township. With the FPO/PLFSE not available the fire chief should review the possibility of using members of the public with a background in teaching, to assist with delivering fire safety messaging. Doing so will aid CFES in meeting the fire line of defence, which is public education. They would become employees of the township and be a non-emergency responding member of CFES.

The paid-on-call public educators would need to be trained to NFPA 1035 and would work in conjunction with the paid-on-call firefighters, in an effort to create a greater roster of people wanting to get involved with the fire department and only perform the role of public educator. This approach would allow the department to become inclusive of all their residents who may have the desire to

serve their community through the fire department. The reality is, not everyone has the ability to meet the requirements of what it takes to be a suppression firefighter and others simply don't want to. The hiring requirements would include acceptable vulnerable sector/criminal background checks and drivers abstracts. They would be required to perform an interview to test suitability.

The public educators would be paid at the same rate as the firefighters who perform public education and be assigned to public events as they come up. Their duties would include but not be limited to, school visits, fairs, seniors' fire safety discussions, developing lesson plans, programs, and initiatives etc. A reporting structure would be identified.

Overall, this is a great way for the department to become more inclusive and broaden its horizon with an entirely new outlook on how programs can and are delivered to the public.

Recommendation #12: Clearview enact a by-law for the operation of second units, outlining that the suites must be compliant with provincial legislation and be registered or licenced with the Township.

Rationale: This by-law would identify the locations of second units, while permitting fire prevention access to inspect the units and provide some fire safety messaging to the proprietor. The building department should also be involved in the inspection process to ensure there are no building code infractions.

Recommendation #13: CFES hire a third-party under a temporary contract to complete the fire inspections and public education until such time as a decision on the full-time position is made.

Rationale: The FPO is currently off on a medial leave and the Fire Chief and Deputy are trying to address fire prevention needs. This takes both officers away from other primary duties they should be looking after. A third party would look after inspecting occupancies that have not been inspected for some time.

Recommendation #14: CFES review the inclusion of the public, as non-responding members of CFES, in the delivery of public education.

Rationale: This initiative would bring an entirely different dimension of community involvement to public education that other fire departments lack.

4.2.2 Code Enforcement/ Inspections

For a CRRP to be successful, ongoing fire inspections are a necessity. It is the inspections that will identify deficiencies and contraventions of either the Fire Code or Building Code of Ontario before they cause a fire. The FPO addresses legislative and regulatory violations, and fire safety hazards within the authority of the *FPPA* and applicable Fire Marshall directives.

The reduction of risks from fire and other life safety hazards with detection and reporting through the inspection process is necessary for the creation of a fire safe community, occupant safety, and building preservation. Inspections also provide assurances that fire detection equipment in buildings meet code standards, are present and operational, and that firefighting equipment in buildings have been tested to the standards. They also manage issuing orders, filing court documents, and carrying out inspections.

Through the utilization of the FUS Inspection Frequency Chart (TABLE #4), the Fire Chief can measure requirements to meet inspection benchmarks, developing a plan with what can be accomplished with its present staffing complement, along with presenting options for increasing inspection frequencies. It is unknown whether the FPO conducts fire inspections in accordance with the recommended FUS inspection frequency; this remains unknown as the designated FPO is on a medical leave. The Fire Chief and Deputy Fire Chief are taking on the role as FPO until further notice. This is also in part due to the department not having completed a FUS recently, which is discussed further in Section 4.3.

TABLE #4: FUS Suggested Inspection Frequency Chart

Occupancy Type	***Benchmark***
Assembly (A)	*3 to 6 months*
Institutional (B)	*12 months*
Single Family Dwellings (C)	*12 months*
Multi-Family Dwellings (C)	*6 months*
Hotel/Motel (C)	*6 months*
Mobile Homes & Trailers (C)	*6 months*
Seasonal/Rec. Dwellings (C)	*6 months*
Commercial (F)	*12 months*
Industrial (F)	*3 to 6 months*

It is acknowledged that the FUS suggested frequency chart can be difficult to address, therefore priority should be focused on the vulnerable occupancies, institutional buildings, assemblies, multi-residential, STAs, and industrial buildings.

The Fire Chief is encouraged to review the number of inspections and associated orders/fines issued on the concept of recidivism; that by which businesses are requiring more inspections, more follow-up, and therefore more time of the FPO, versus those which require minimal assistance or interaction of the FPO. A business or owner with tendencies to reoffend or ignore the primary concepts of fire prevention may tend to preoccupy the FPO unnecessarily. It is recommended that the Fire Prevention Division report annually on activities being conducted to reset baselines and indicate success or

challenges with achieving benchmarks. If it is found that the number of required inspections is becoming a taxing workload, a review of the Fire Prevention Division's activities should be conducted, with consideration given to realigning priorities, including the need for additional FPOs.

Recommendation #15: Fire Prevention Division monitor inspection and public education requirements and consideration be given to the addition of more FPOs to assist in ensuring all needs of the Division are met.

Rationale: Fire prevention has a high workload; monitoring activities will identify shortfalls in both fire inspections / enforcement and public education, which are the first two lines of defence as established by the OFMEM in fire preventing fires.

4.2.3 Origin and Cause

The fire service in Ontario is mandated to determine the origin and cause of fires. The results of these investigations assist in identifying trends which are used in the development of building and fire codes, public education, and fire prevention initiatives. Typically fire investigation is a part of the FPO's role. The *FPPA* requires CFES to investigate and determine the origin and cause of all fires. While the Fire Chief and Deputy Fire Chief have completed NFPA 1033, the standard on fire investigations, they have yet to be certified to investigate a fire. The final portion of their certifications was delayed due to the pandemic.

Knowledge from determining origin and cause assist in targeting groups or causes to better educate the public on fire safety. Another purpose is to ensure fire code compliance (i.e., were there working smoke alarms). Any future training opportunities in fire investigation should be achieved to identifying trends and addressing them through public education or enhanced fire investigations, involving outside resources.

Recommendation #16: FPO to complete the NFPA 1033, Standard for Fire Investigation course and that the FPO and any officers (who have completed the NFPA 1033 course) seek certification.

Rationale: Completing this NFPA Standard and achieving certification will provide CFES a certified investigator.

4.2.4 Public Education

The Fire Prevention Division has a public education program that teaches fire safety to all ages in a variety of formats and settings. The FPO is also the PFLSE and is responsible for running education activities and creating and/ or delivering education programs. CFES is committed to delivering a full array of fire prevention services and public education programs with available resources. Numerous partnerships with local businesses, media outlets, and other municipal entities such as the library

should be established to aid in the delivery of this public education programming. It is recommended increased efforts to leverage social media platforms and to develop partnerships with internal and external stakeholders would support advancement of public safety messaging campaigns.

Further to what has already been noted by the NFPA and FUS outlines the following regarding fire prevention and public education:

> *A public education program is in place and directed toward reducing specific risks in a manner consistent with the agency's mission and as identified within the community risk assessment and standards of cover. The agency should conduct a thorough risk-analysis as part of activities in Category 2 to determine the need for specific public education programs.*

The utilization of existing resources is a cost-effective option for the promotion of fire prevention and public education programs. To accomplish this, some fire departments have trained suppression staff to conduct inspections or assist in public education. This not only brings more resources to the table but also enhances the level of fire safety awareness by those trained staff.

Currently the CFES does not utilize suppression personnel to support the inspection program. Some members of suppression have been enrolled and completed NFPA 1031 and 1035. As such, opportunities exist to enhance these programs and to implement innovative approaches with support from within the CFES directed towards the Fire Prevention Division. It is recommended that consideration be given to training any suppression personnel, who may be interested, to Public Fire & Life Safety Educator, Level I. CFES conducts home inspections to ensure working smoke and CO alarms are in place while also observing for clutter that should cleaned up. The firefighters should not assist with inspections that have complexities, that may require orders to comply, being issued against the occupancy.

Documentation of the public education events, including the topics discussed and the number of participants in attendance. The OFMEM has provided a means of documenting these events and CFES should use this tool as a means of record management of public education events. The OFMEM website is:

Pub Ed Planning and Tracking Tool.xlsx – Google Drive, https://drive.google.com/file/d/0B0f8qgi7_vN2LVloem5tdFl1aEk/view?resourcekey=0-22HF5jDfUiF-R7E-OnxtiQ

4.2.5 Determination of Current Fire Prevention Staffing Requirements

To assist fire departments in the determination of present and future staffing needs, *NFPA 1730 Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations* outlines a five-step process within Annex 'C' of

the standard. Ultimately, Council determines the level of Fire Prevention based off the local needs and circumstances of the community.

Note: Annex 'C' is not part of the requirements of this NFPA document but is included for informational purposes only.

The five-step process involves a review of the following items:

Step 1 – Scope of service, duties, and desired outputs

Identify the services and duties that are performed within the scope of the organization. Outputs should be specific, measurable, reproducible, and time limited. Among the elements can be the following:

- *Administration*
- *Data collection, analysis*
- *Delivery*
- *Authority/responsibility*
- *Roles and responsibilities*
- *Local variables*
- *Budgetary considerations*
- *Impact of risk assessment*

Step 2: Time Demand

Using the worksheets in Table C.2.2(a) through Table C.2.2(d), quantify the time necessary to develop, deliver, and evaluate the various services and duties identified in Step 1, considering the following:

- *Local nuances*
- *Resources that affect personnel needs*

<u>Plan Review</u> - Refer to Plan Review Services Table A.7.9.2 of the standard to determine Time Demand.

Step 3: Required Personnel Hours

Based on Step 2 and historical performance data, convert the demand for services to annual personnel hours required for each program [see Table C.2.3(a) through Table C.2.3(e)]. Add any necessary and identifiable time not already included in the total performance data, including the following:

- *Development/preparation*

- *Service*
- *Evaluation*
- *Commute (travel time to training sessions)*
- *Prioritization*

Step 4: Personnel Availability and Adjustment Factor

Average personnel availability should be calculated, considering the following:

- *Holiday*
- *Jury duty*
- *Military leave*
- *Annual leave/vacation*
- *Training*
- *Sick leave*
- *Fatigue/delays/other*

Example: Average personnel availability is calculated for holiday, annual, and sick leave per personnel member (see Table C.2.4).

Step 5: Calculate Total Personnel Required

Division of the unassigned personnel hours by the adjustment factor will determine the amount of personnel (persons/year) required. Any fractional values can be rounded up or down to the next integer value. Rounding up provides potential reserve capacity; rounding down means potential overtime or assignment of additional services conducted by personnel (personnel can include personnel from other agencies within the entity, community, private companies, or volunteer organizations).

Correct calculations based on the following:

- *Budgetary validation*
- *Rounding up/down*
- *Determining reserve capacity*
- *Impact of non-personnel resources (materials, equipment, vehicles) on personnel*[11]

[11] "NFPA 1730: Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations," accessed on January 2, 2022, https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1730.

More information on this staffing equation can be found within the NFPA 1730 standard. The FPO should assess these five steps and evaluate their present level of activity and the future goals of the division. To assist in this process, the FPO should more closely track the actual time spent on each of the Fire Prevention activities (ranging from site plan reviews, routine inspections, licensing, complaints, and requests, to name a few). Staff should be documenting public education events along with how many people attend these events. By identifying the time spent on each project and collating this into baseline (approximate) times, the Fire Prevention Division can use those hours spent as a baseline figure in applying future initiatives.

As mentioned, the utilization of existing resources is a cost-effective option for the promotion of fire prevention and public education programs. To accomplish this, some fire departments have trained most, if not all their fire suppression staff, to be certified to conduct fire prevention/public education inspections and programs. This not only brings more resources to the table, but it also enhances the level of fire safety awareness by those trained staff.

At this time, CFES should move towards having more of its fire staff (based on those interested in this type of certification) trained and certified in the areas of fire prevention and public education to at least NFPA 1031 – Fire Inspector I, and NFPA 1035 – Fire and Life Safety Educator I.

4.3 Training & Education

A fire service is only capable of providing effective levels of protection to its community if it is properly trained and equipped to deliver these services. Firefighters must be trained and equipped to apply a diverse and demanding set of skills to meet the future demands the community they serve. Whether assigned to Administration, Fire Prevention, or Fire Suppression, firefighters must have the knowledge and skills necessary to provide reliable fire protection.

NFPA 1201 – Providing Fire and Emergency Services to the Public notes, in relation to training and professional development, that:

- 4.11.1 *The Fire Department Organization shall have training and education programs and policies to ensure that personnel are trained, and that competency is maintained in order to effectively, efficiently, and safely execute all responsibilities.*

The Training Officer is charged with identifying the training needs of the suppression staff based on industry requirements. Planning and organizing the training and ensuring all training programs are properly documented takes up a great deal of the allotted hours, but it is necessary that all required training programs are in place and being assessed. Particular attention for training and training resources is focused on ensuring that all services, as stated in the E&R By-Law must be adequately addressed. In addition, mandatory NFPA-based firefighter training for all fire services in Ontario is

(most likely) imminent, but at the very least a general requirement under the *OH&S Act*. With this in mind, all fire services should be planning and moving towards having the people, processes, and resources in-place to accomplish mandatory training.

During EM&T's review of the training and education programs, it was found that CFES staff are endeavouring to ensure that all required training programs are being addressed to the best of the Department's ability. The Department does utilize the services of in-house staff (volunteers), wherever possible, in an attempt to ensure both consistency in training programs and related qualifications. However, training in terms of officer training, NFPA-based training, and staff development in general is not meeting the needs of the organization's growth or development.

However, it was noted that there is no formal training plan in place to identify and track all training competencies. As such, it is strongly recommended that an annual plan be developed, resourced with adequate funding, implemented, and continually assessed to ensure that the volunteer firefighters are completing the required training. A plan should also be put in place to identify how any training that was not completed, can be completed.

During conversations with the Training Officer, the following was discussed:

- Ensuring that all training programs are meeting industry standards
- That all training is conducted in a consistent manner at all fire stations
- That all training records are properly maintained and kept up to date
- That a proper annual training program is in place, coupled with an annual assessment relating to the efficiency of the training programs
- There is a planned and supported staff (particularly officers), development program
- Ensure Live Fire Training for all firefighters

The Fire Chief and Training Officer are aware of the program needs and facility requirements. To verify in a more formal manner, however, that each training program is meeting the related NFPA program recommendations, the Fire Chief and Training Officer should:

- Identify what training programs are required for the services that CFES is providing.
    - Each area needs to be evaluated regarding the present (and future) services to be provided by the Fire Service, such as suppression, EMS, hazardous materials response, etc.
- Identify the number of hours that are required to meet each of those training needs based on Provincial and/or industry standards.
    - What are the recommended training hours required and what refresher programs need to be conducted, and when?
- Identify the resources required to accomplish this training.

  - Does the training program require a full training tower for live fire and rescue scenarios, or can this be accomplished in other ways?

- Continue to strengthen joint partnerships with bordering fire departments, OFM/RTC, and private organizations to achieve the training requirements identified.
  - What joint training can be accomplished to promote cost efficiencies?

Linking and supporting the training subjects with Provincial and industry standards will give greater credibility to each training initiative.

The training program should include a training plan for all firefighters such as:

- NFPA 1001 – Firefighter levels one and two within the first year
- NFPA 1002 – Driver operator qualifications within the second or third year
- NFPA 1006 – Technical rescue at the awareness levels
- NFPA 1021 – Fire Officer level one and two training for all suppression officers
- NFPA 1072 – Hazardous Materials response at the awareness level
- NFPA 1041 – Fire Instructor level one and two for those teaching courses within the department

4.3.1 Training Facility

The Department does not have a training facility to conduct regular hands-on programs, such as live fire training and other specialized programs that require more training props outside of those available at the fire stations. CFES does have an area at the fire stations where some auto extrication training and other general training can take place, but each facility is limited in what training can be accomplished. CFES previously did weekend fire training at the Ontario Fire College, however with the closing of the Fire College, this option no longer exists.

Live fire training is essential for all firefighters who operate in interior attack mode. The E&R specifies that Clearview provides this level of service. Structure fires and interior operations are one of the most risk-intense levels of service that the Fire Service provides. To adequately manage this risk, CFES must provide training to both new and incumbent firefighters who are expected to provide interior firefighting at emergency incidents.

Understandably, a fire training centre and “burn tower” facility is not practically or financially feasible for all municipalities. Should live fire training take place outside the municipality, there are significant resources and costs required to be dedicated to that training alone.

Many smaller and mid-size departments have opted to purchase a mobile training unit that has multi-training capabilities. The advantage of having access to such a unit is that it can be parked at a fire station and does not require a full site-specific yard/ compound to use. Another advantage of such a unit is that it can be moved between fire stations or even rented out to other communities on a scheduled basis as a method of revenue generation.

Recently the Ontario Fire Marshall has launched the first of two new Mobile Live Fire Training Units to help support fire services' training needs. The mobile units also support the province's plan to expand and modernize access to firefighter training in addition to the RTC model. EM&T recommends that this needs to be a factor in CFES training planning and execution. CFES would benefit from considering and further investigating this resource as an option if the purchase of their own mobile unit is not a viable option.

Recommendation #17: CFES to develop an annual training plan, resourced with funding, implement, and continually assess to ensure that the volunteer firefighters are completing the required training.

Rationale: *Having a plan in place will aid the fire chief in determining future funding requirements, while meeting the required training needs. Recent developments in the OFMEM to move towards mandatory NFPA-based training and certification further heightens the importance of training planning and budgeting for all firefighters, be they full-time career or volunteer/paid-on-call.*

Recommendation #18: CFES should further investigate the value of purchasing a mobile live fire training unit, as opposed to utilizing the OFMEM mobile trailer, when/if available. The findings of the review are to be presented to Council for approval of preferred option.

Rationale: *By owning their own unit, they would have the ability to use such a unit more frequently which will in turn means a higher level of experience for the firefighters in fire conditions. The unit could in time become a revenue generating opportunity for CFES.*

SECTION 5

Fire Suppression, Response, Dispatching Services, & Recruitment & Retention

SECTION 5: FIRE SUPPRESSION, RESPONSE, DISPATCHING SERVICES, & RECRUITMENT & RETENTION

5.1 Fire Suppression/ Emergency Response

CFES is a volunteer department, and as such the NFPA 1720 standard for volunteer fire department response is applicable for this review. It should be noted that although the NFPA is not a mandated standard, it is recognized as an industry best practice. As such, it is advisable that fire departments use NFPA standards as goals and guidelines to strive for.

When volunteer departments receive a call for service, firefighters are often not in the station when the call comes in. They must drive to their assigned fire station, get into their bunker gear, board the apparatus, and then respond; this is known as the 'turnout' time. The NFPA 1720, standard for volunteers does not identify a benchmark for turnout times. The AHJ should establish a turnout time benchmark that is achievable and can be monitored. If this time becomes less than the benchmark, that will indicate an improvement in their turnout time.

Based on the 2020 data, the turnout time for CFES ranged from seven minutes nine minutes (see Figure #15).

5.1.1 National Fire Protection Association (1720)

To provide the fire department clearer focus on what the ultimate goals for emergency response criteria are, the NFPA suggests that response times should be used as a primary performance measure.

When considering the response times and needs of a community, the fire response curve (FIGURE #5) presents the reader with a general understanding of how fire can grow within a furnished residential structure over a short period of time. Depending on many factors, the rate of growth can be affected in several different ways, which can increase or suppress the burn rate through fire control measures within the structure.

When we review the response time of a fire department, it is a function of various factors including, but not limited to:

- The distance between the fire department and response location
- The layout of the community
- Impediments such as weather, construction, traffic jams, lack of direct routes (rural roads)
- Notification time
- Assembly time of the firefighters, both at the fire station and at the scene of the incident

- Assembly time includes dispatch time, turnout time to the fire station, and response to the scene. Assembly time can vary greatly due to weather and road conditions, along with the time of day as many firefighters are at their full-time jobs and cannot respond to calls during work hours.

As illustrated in the following fire propagation diagram, the need for immediate initiation of fire suppression activities is critical. CFES responds to more than just fires (i.e., motor vehicle collisions can create a medical or fire emergency that also needs immediate response). It is imperative to be as efficient and effective as possible in responding to calls for assistance.

FIGURE #5: Fire Response/Propagation Curve

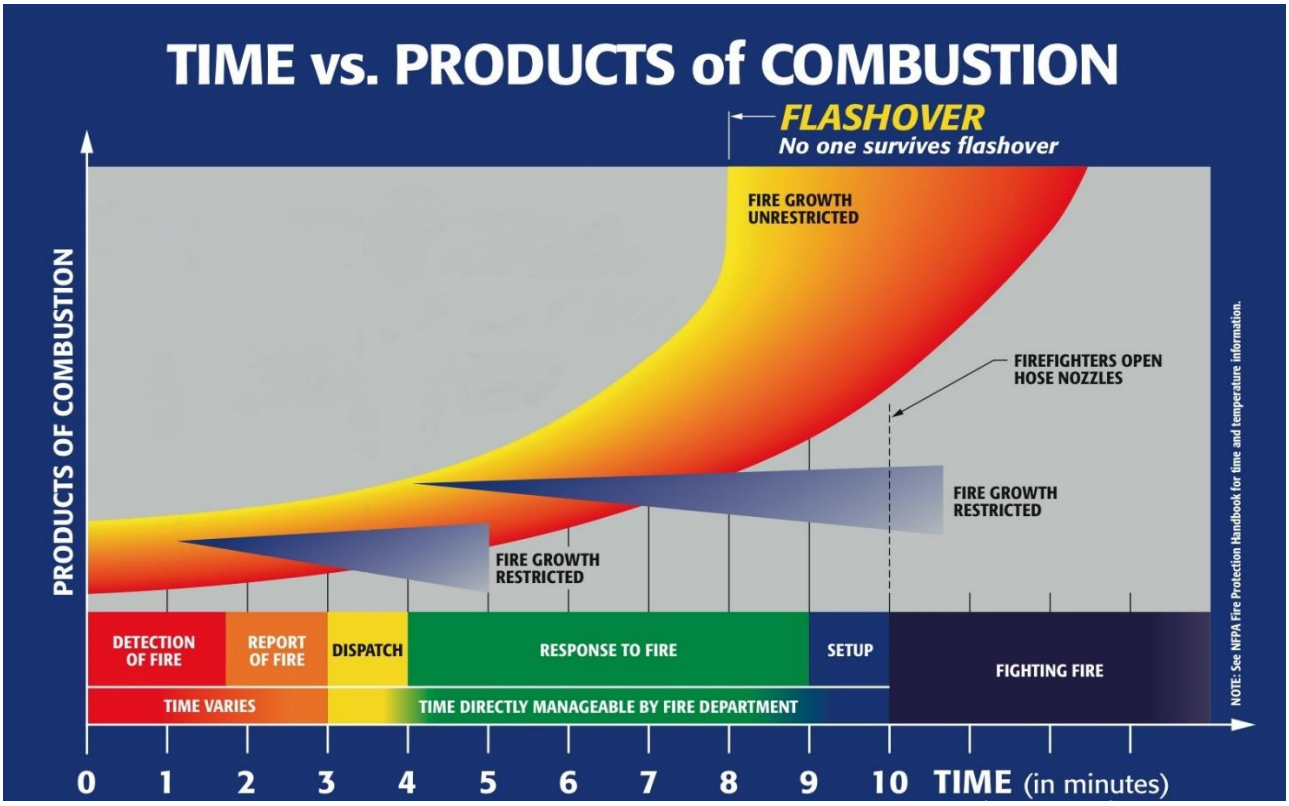


FIGURE #5 notes the following time variables:

- **Detection of fire** – this is when the occupant discovers that there is a fire. The fire may be in a very early stage or could have been burning for quite some time before being detected.
- **Report of fire** – this is when someone has identified the fire and is calling 9-1-1 for help.
- **Dispatch** – the time it takes the dispatcher to receive the information and dispatch the appropriate resources.
- **Response to the fire** – response time is a combination of the following:

- **Turnout time** – how long it takes the career firefighters to get to the fire truck and respond or how long it takes the volunteer firefighters to get to the fire station to respond on the fire truck.
- **Drive time** – the time from when the crew advises dispatch that they are responding, until the time that they report on scene.
- **Setup time** – the time it takes for the fire crews to get ready to fight the fire, and
- **Fighting the fire** – actual time it takes to extinguish the fire on scene.

The overall goal of any fire department is to arrive at the scene of the fire and/or incident as quickly and as effectively as possible. If a fire truck arrives on scene in ten minutes or less, with a recommended crew of four or more firefighters, there is increased opportunity to contain the fire by reducing further spread to the rest of the structure. Alternatively, if the first fire attack team arrives with fewer than four firefighters on board, it is limited to what operations it can successfully attempt.

Based on studies and evaluations conducted by the National Institute of Standards and Technology (NIST) and the NFPA, no interior attack is to be made by the firefighters until sufficient personnel arrive on scene. The expectation is that a minimum of three firefighters and one officer arrive on scene to make up the initial fire suppression team. This team of four can effectively do an assessment of the scene, secure a water source (e.g., fire hydrant), ensure the fire truck is ready to receive the water and get the fire pump in gear, as well as unload and advance the fire hose in preparation for entry into the structure. A team of four also allows for adherence to the recommended "two-in, two-out" rule, referring to the presence of two firefighters inside the structure with two outside ready to go in as back-up.

The Fire Chief must ensure that each station has a complement that allows for an initial full crew response to incidents. To accomplish this, a response protocol is in effect that ensures whenever a station and its firefighters are dispatched to any type of call where back-up may be required, another station is automatically dispatched to the same incident. Currently, due to the lower number of firefighters at the Singhampton Station, the Creemore Station is often dispatched at the same time to ensure adequate staffing is enroute.

5.1.2 Response Data

The following series of charts identify a comparison of response types and the response breakdown among the five fire stations.

There needs to be a review of the future growth statistics and demographics of the community to understand where the potential needs will be and where some efficiencies can be made. As such, CFES response times should be monitored based on the OFMEM definition, which is from "dispatch time, to time of arrival at the incident"; in other words, from the time the call is received, to when the

fire station or pager tones activate, to when the firefighters get on the fire trucks and arrive at the emergency scene location.

Performance measurements that the fire department could benefit from include monitoring response time, turnout time, drive time, and staffing time (time from the page until the appropriate number of firefighters are on scene).

In reviewing the time it takes to arrive at an incident once leaving a fire station, it was found that most of the time the apparatus arrives between 10 and 16 minutes in 2020. The FIGURE #6 map indicates the areas the crews may arrive within a 10-minute drive time.

Note: *In monitoring time measurements, the 80th percentile criterion is the recommended practice that is endorsed by the NFPA and CFAI. This data is more accurate since it is evaluating the times based on 80% of the calls, as opposed to averaging the times at the 50th percentile. For example:*
8 out of 10 times the fire department arrives on scene in 10 minutes or less, which means that only 20 percent of the time they are above that 10-minute mark as opposed to 5 out of 10 times (average) the fire department arrives on scene in 10 minutes or less, which means that 50% of the time they are above the 10-minute mark.

The travel time grids are calculated using the GIS software Caliper Maptitude, which uses the road network with the posted speed limits, factoring in direction of travel, traffic lights, and stop lights. While the posted speed limit is used, it is understood that at times fire apparatus responding to calls may exceed the speed limit if it is safe to do so, thus reducing the response time. Correspondingly, there will be times due to weather conditions, construction, and traffic congestion that the fire apparatus will be travelling at speeds lower than the posted speed limit (even using emergency lights and sirens). Therefore, using the posted limit is a reasonable calculation in determining travel distance.

FIGURE #6: Location of Each Fire Station and their Response Zones

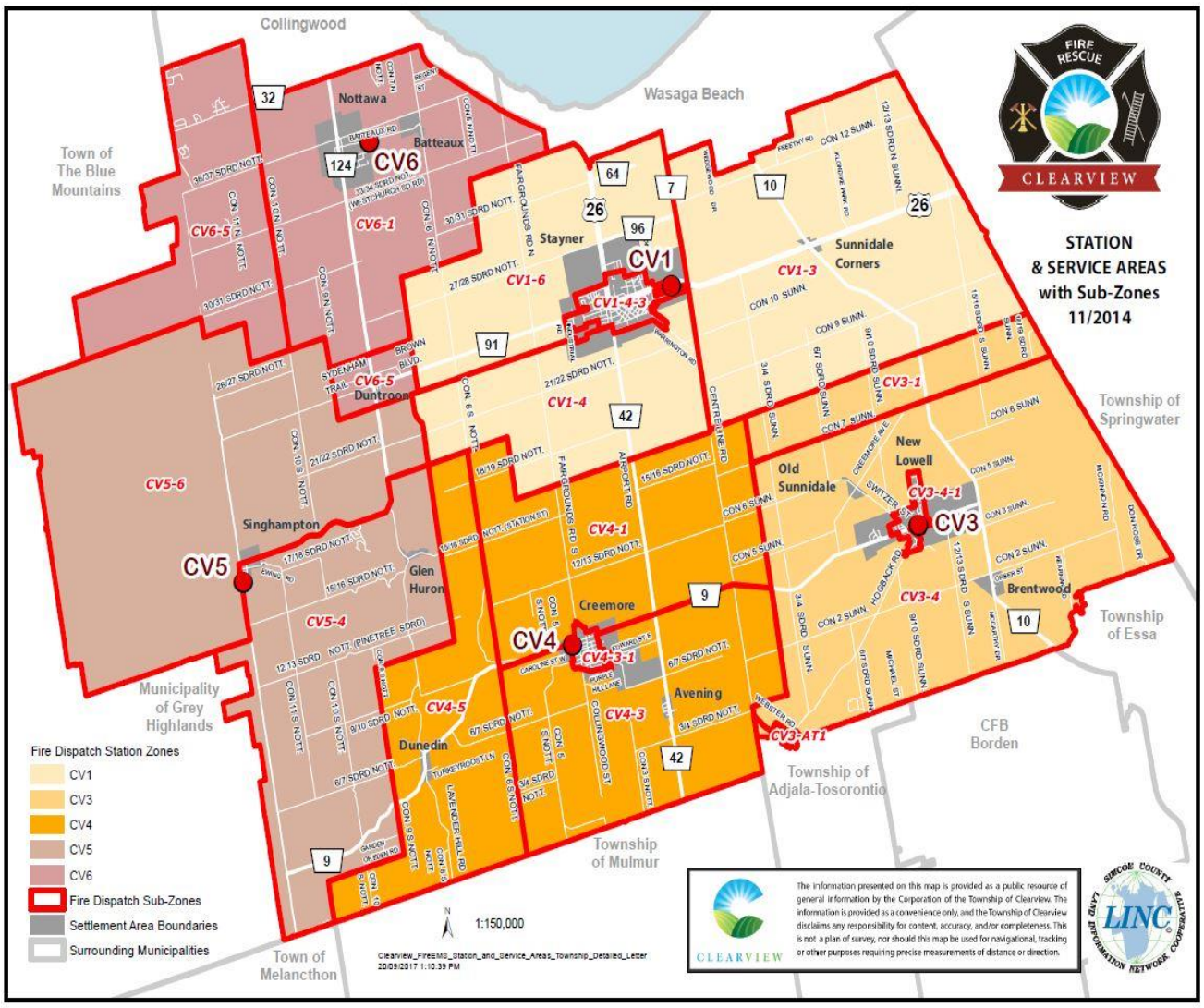
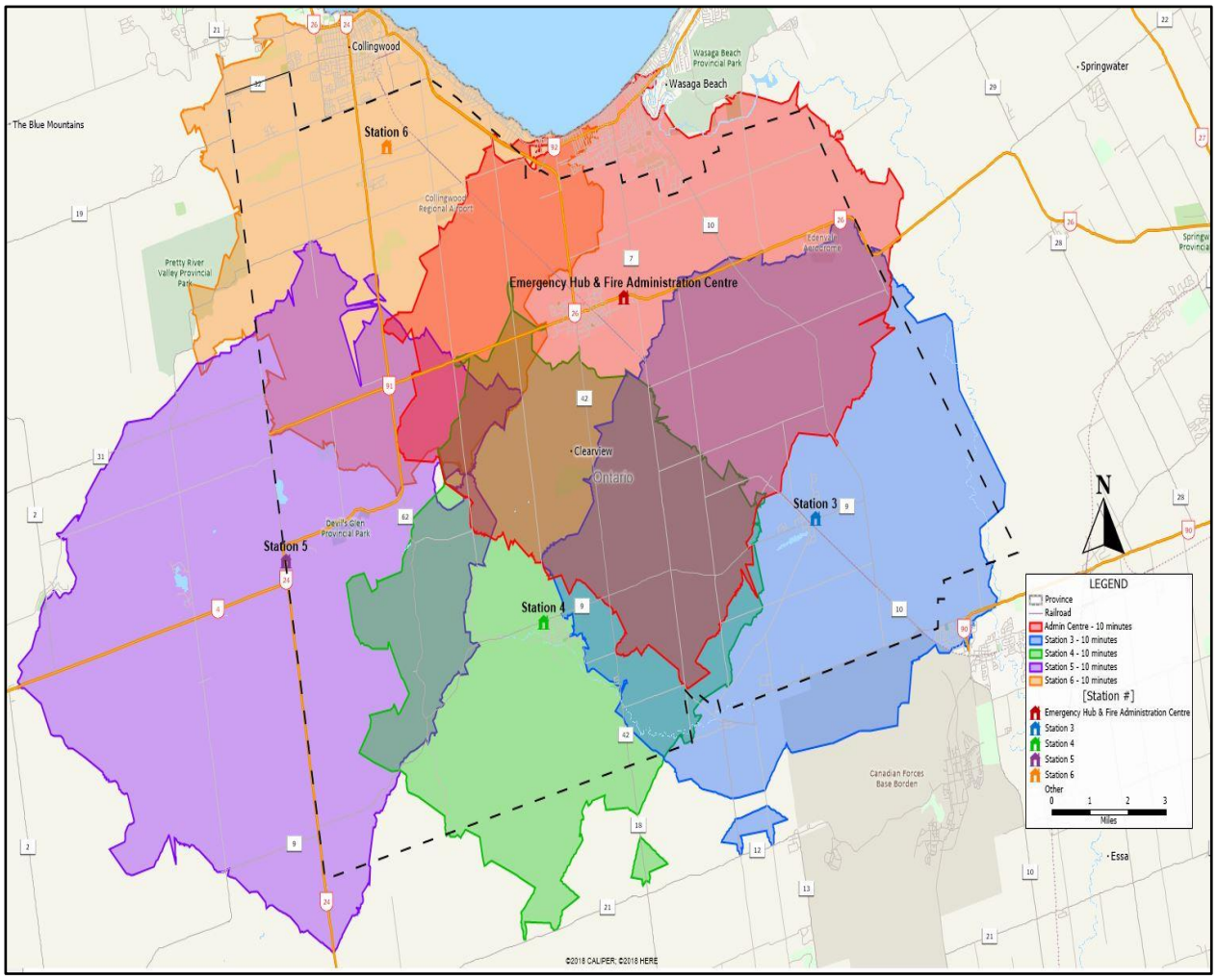


FIGURE #7: 10-Minute Drive Time Map



The above drive time map identifies a level of coverage based on the physical locations of the stations relative to the NFPA recommended response times. With this illustration, there are very few areas of the municipality that the CFES cannot reach within a 10-minute drive time.

The following set of charts (using the supplied data) help to identify the types of calls that are creating the bulk of response demands and which station(s) are called upon the most for these responses.

TABLE #5: Summary of Total Emergency Call (fires and non-fires) for Clearview, OFMEM Data

	Total	Loss Fire Structure	Loss Fire Other	Loss Fire Vehicle	No Loss Fire	No Loss Fire – Excluded	Non-Fire Call
2015	686	8	0	9	3	15	651
2016	750	10	0	4	1	14	721
2017	760	8	0	6	1	10	735
2018	770	8	0	7	0	12	743
2019	810	9	1	0	3	17	780
2020	709	9	D/N/A	0	5	12	683

TABLE #6: Summary of Total Emergency Call (fires and non-fires) for Province of Ontario, OFMEM Data

	Total	Loss Fire Structure	Loss Fire Other	Loss Fire Vehicle	No Loss Fire	No Loss Fire – Excluded	Non-Fire Call
2015	477,172	7,241	769	2,942	2,284	7,396	456,540
2016	494,858	7,171	832	2,843	2,410	8,649	472,953
2017	514,177	6,683	689	2,935	1,876	5,820	496,174
2018	546,083	7,000	806	3,240	2,092	7,406	525,539
2019	534,313	6,698	694	3,253	1,880	5,750	516,038
2020	449,588	6,833	836	2,920	1,953	8,246	428,800

D/N/A – Data Not Available

FIGURE #8 and FIGURE #9, illustrates the types of calls responded to by the CFES in 2019 and 2020. Additional charts with data for the years 2018 are available in Appendix F.

FIGURE #8: Call Types for all the Stations in 2019

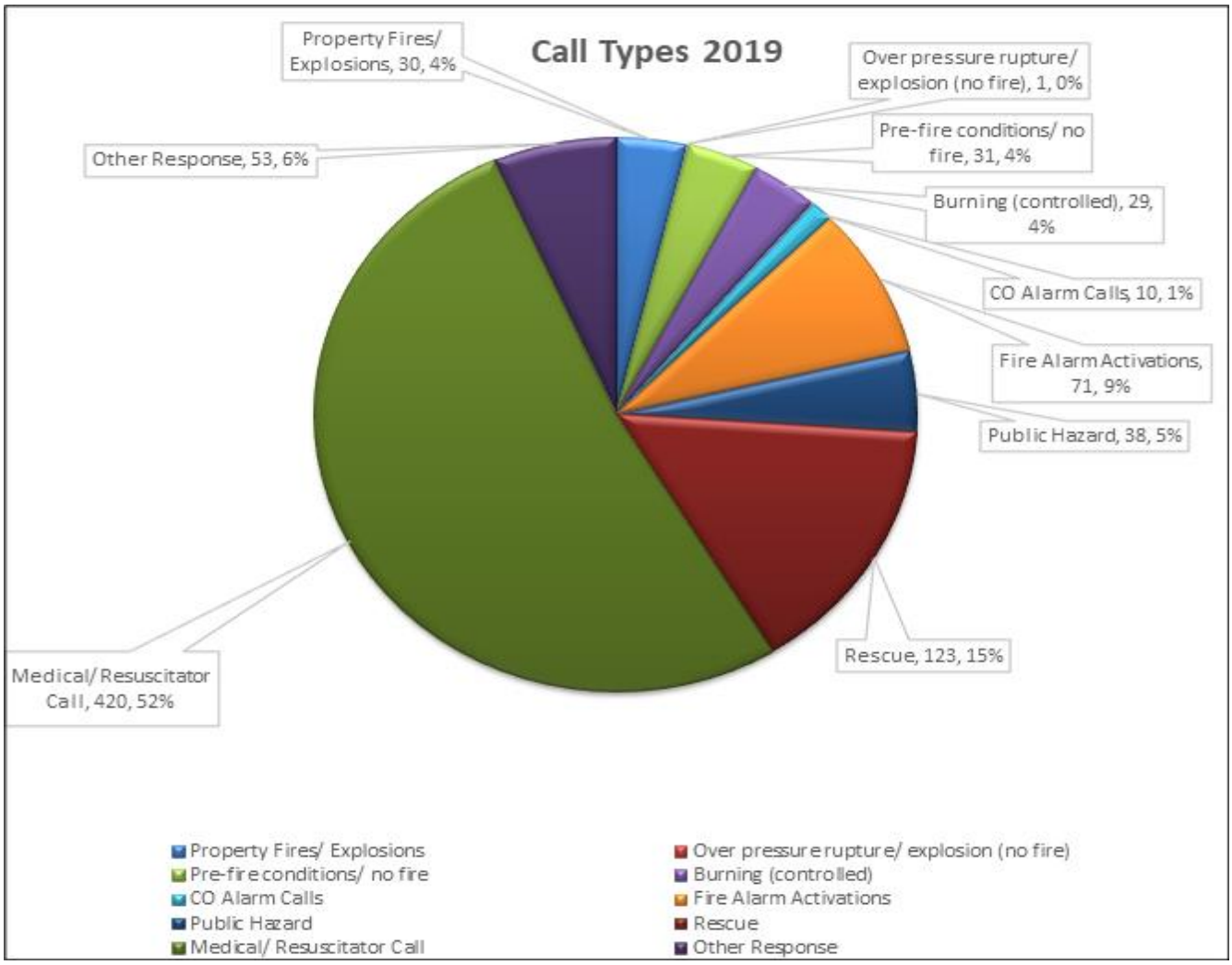
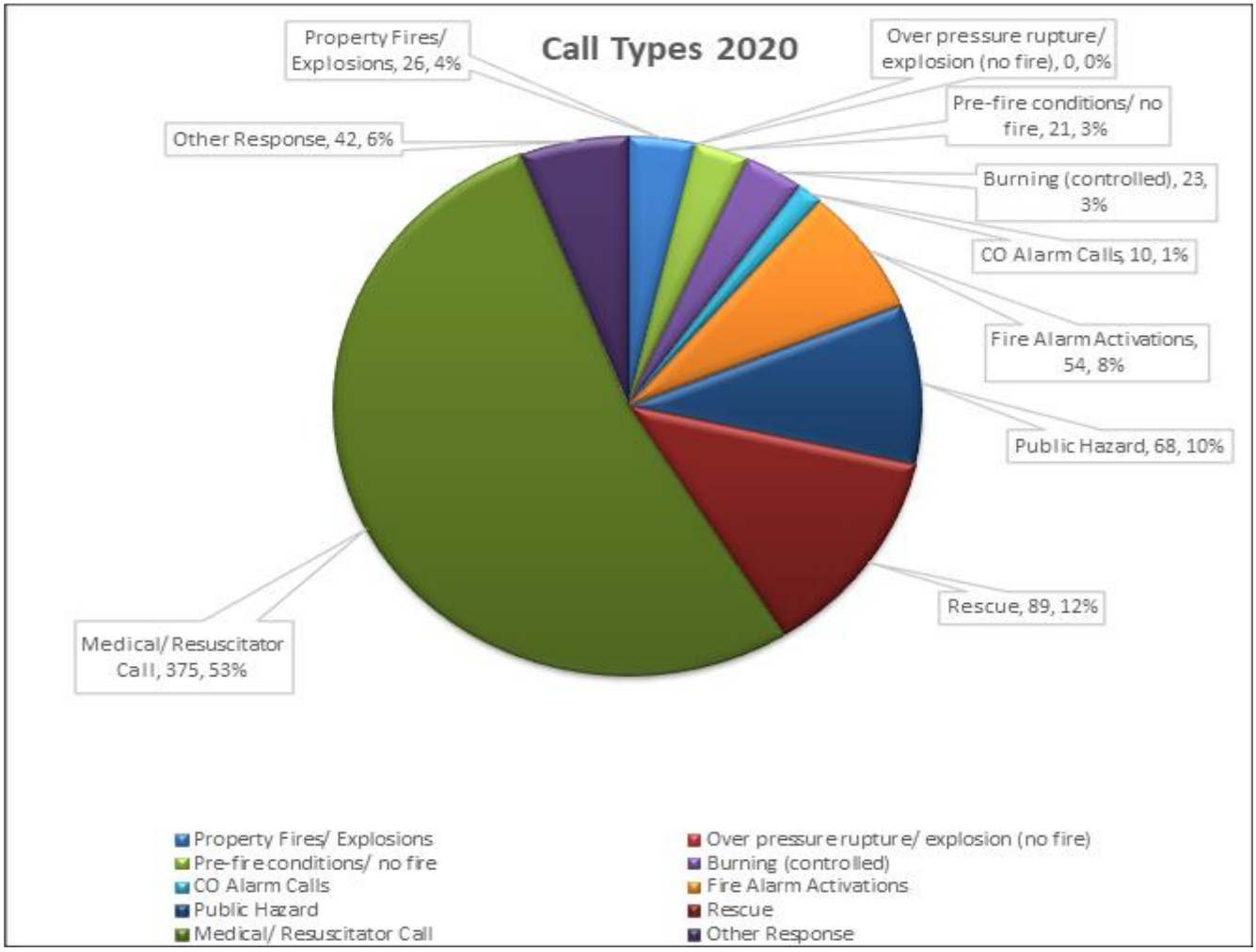


FIGURE #9: Call Types for all the Stations in 2020



As can be noted in the above chart, the top three types of calls in 2020 that CFES responded to are:

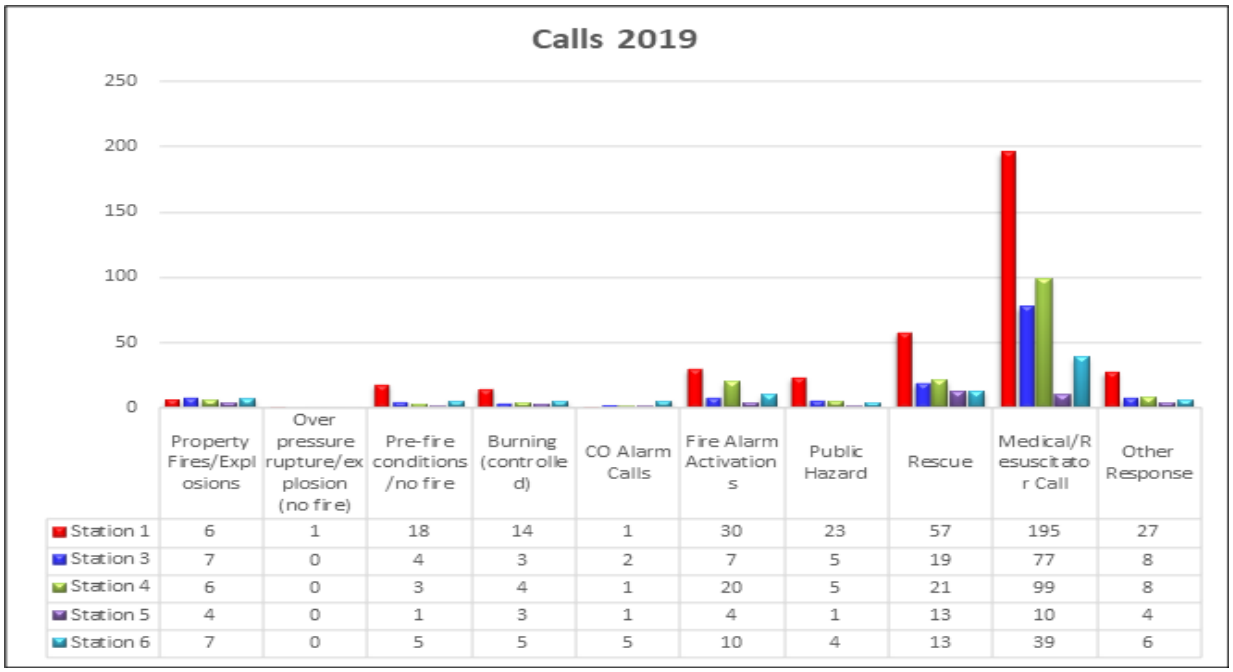
- Pre-fire conditions accounted for 53% of the responses
- Rescues accounts for 12% of the responses
- Public Hazards accounts for 10% of the responses

These top three types of calls have remained relatively the same over the passed three years.

FIGURE #10 breaks the call types down by station. As indicated in FIGURE #10, many of the call types are pre-fire conditions, fire alarm activation, or property fires. With so many fire alarm activations, many of them are false alarms caused by faulty equipment or testing of alarm systems without notifying the answering service, etc. The Fire Chief could take measures to assist in reducing the number of false fire alarm calls that the crews are called out in the form of invoicing for unnecessary call outs.

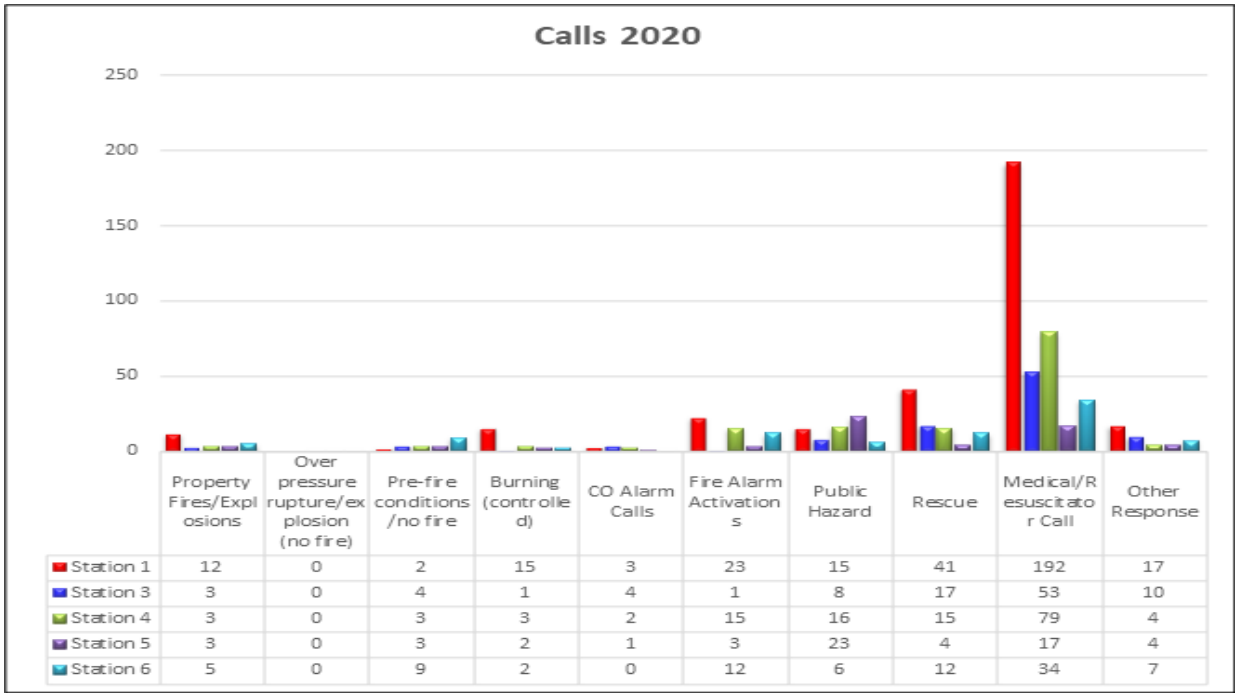
It should be noted that the following data charts, do not include any responses in which only a Senior Officer responded. Only calls in which a station was dispatched are used.

FIGURE #10: 2019 Call Types by Station



	Property Fires/Explosions	Over pressure rupture/explosion (no fire)	Pre-fire conditions/no fire	Burning (controlled)	CO Alarm Calls	Fire Alarm Activations	Public Hazard	Rescue	Medical/Resuscitator Call	Other Response
Station 1	6	1	18	14	1	30	23	57	195	27
Station 3	7	0	4	3	2	7	5	19	77	8
Station 4	6	0	3	4	1	20	5	21	99	8
Station 5	4	0	1	3	1	4	1	13	10	4
Station 6	7	0	5	5	5	10	4	13	39	6

FIGURE #11: 2020 Call Types by Station



	Property Fires/Explosions	Over pressure rupture/explosion (no fire)	Pre-fire conditions/no fire	Burning (controlled)	CO Alarm Calls	Fire Alarm Activations	Public Hazard	Rescue	Medical/Resuscitator Call	Other Response
Station 1	12	0	2	15	3	23	15	41	192	17
Station 3	3	0	4	1	4	1	8	17	53	10
Station 4	3	0	3	3	2	15	16	15	79	4
Station 5	3	0	3	2	1	3	23	4	17	4
Station 6	5	0	9	2	0	12	6	12	34	7

FIGURE #12: 2019 Total Calls Per Station

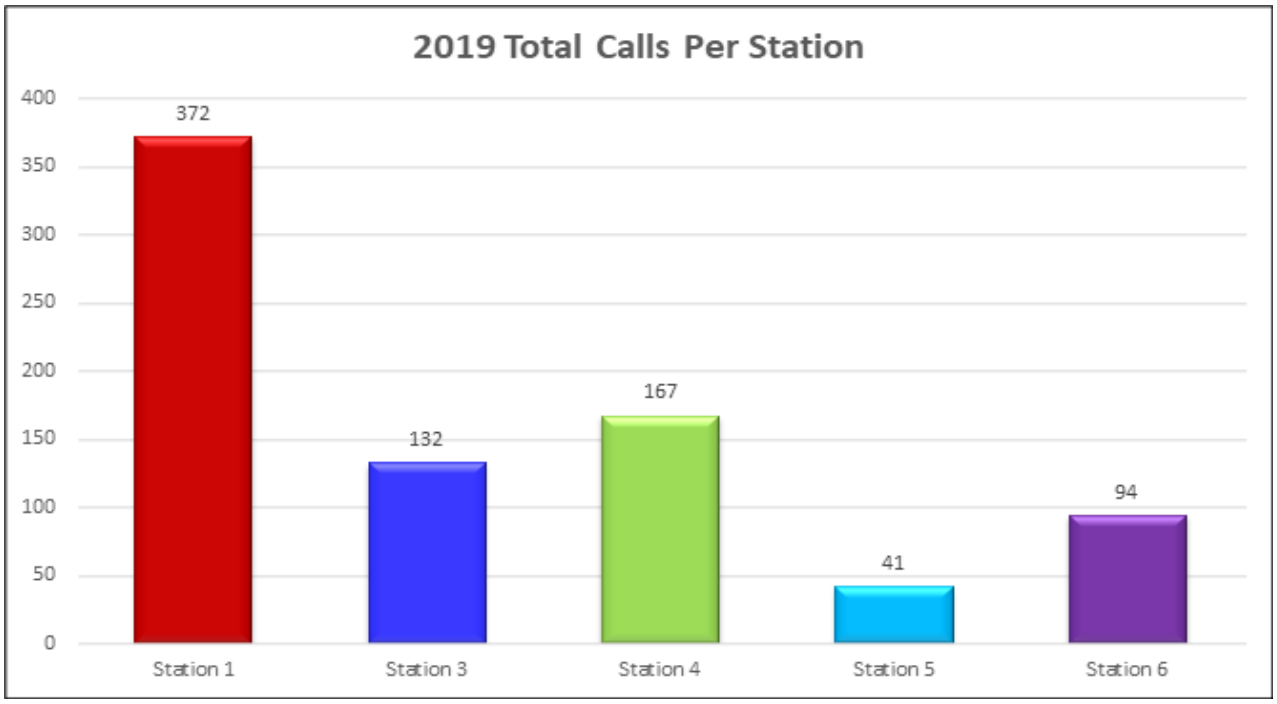
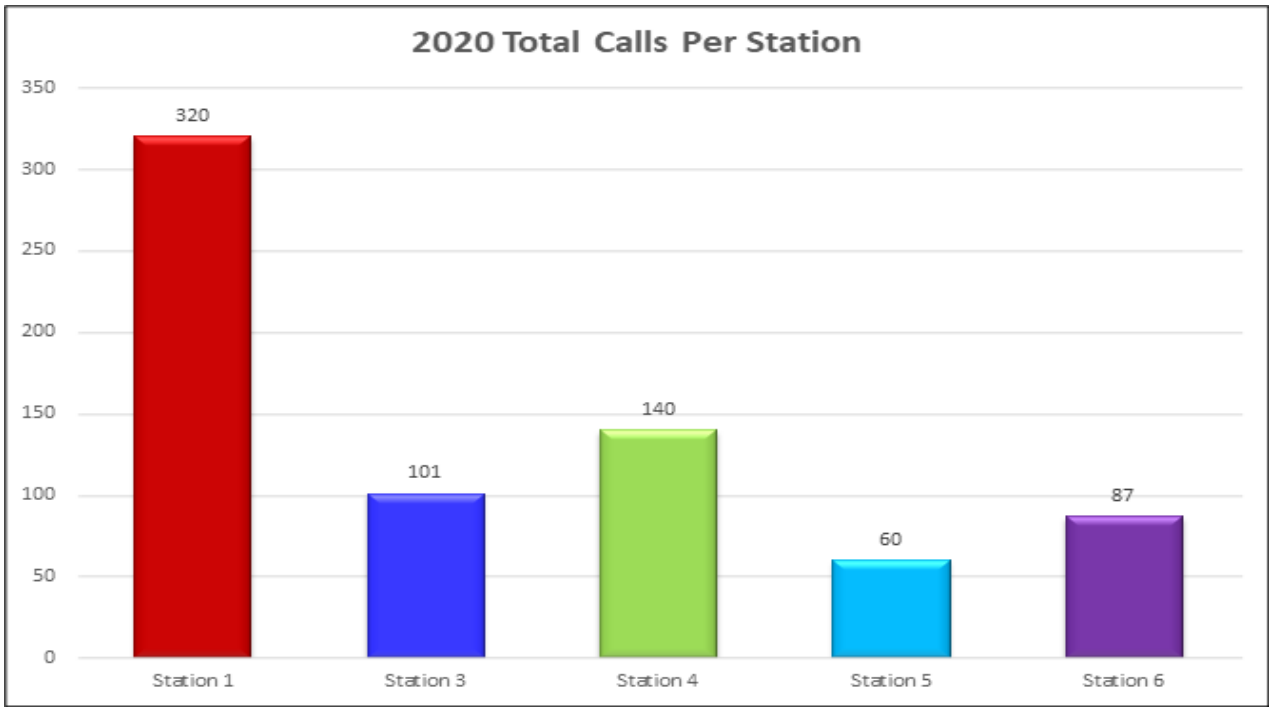


FIGURE #13: 2020 Total Calls Per Station



FIGURES #14 and 15 illustrates the 80th percentile turnout times; this represents the time it takes from when the firefighters are dispatched to when the first apparatus is in motion traveling to the location of the incident.

FIGURE #14: 2019 Turnout Times by Station

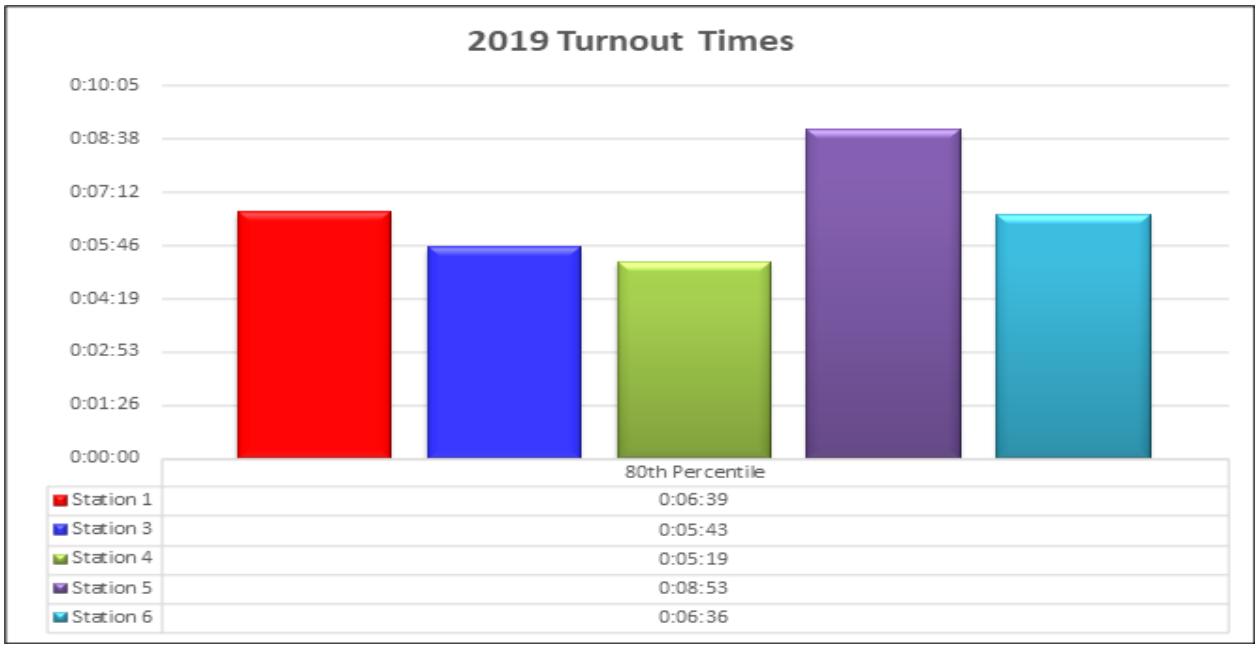
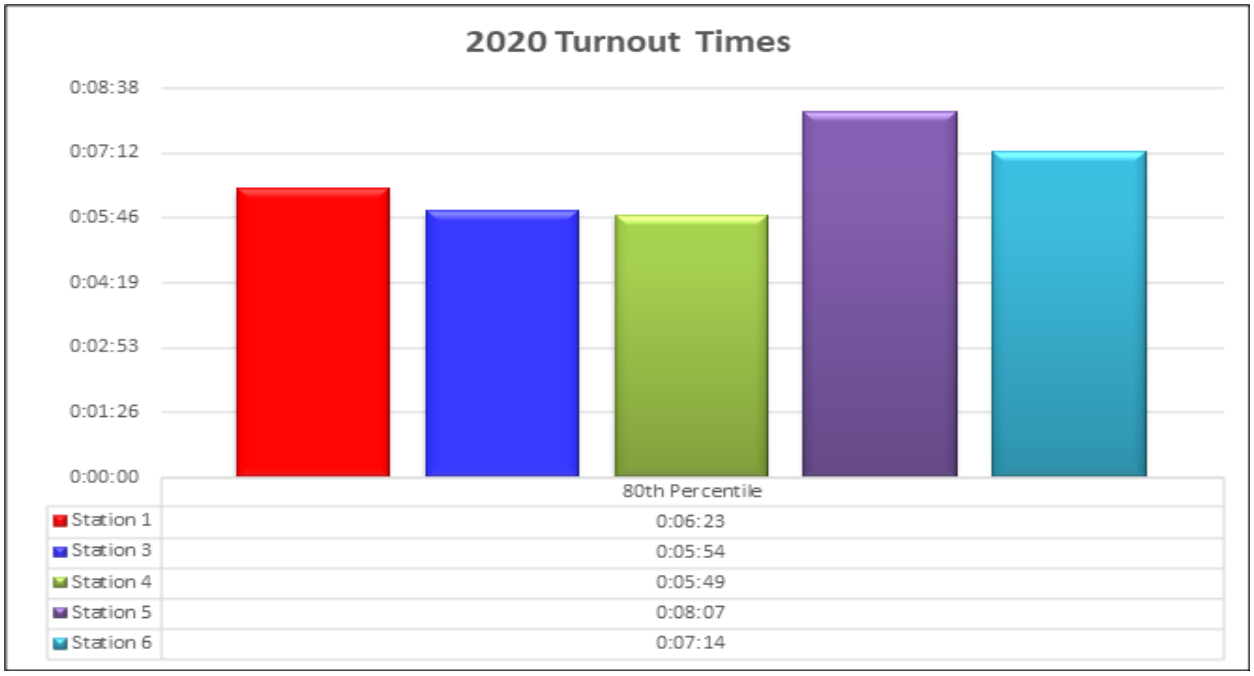


FIGURE #15: 2020 Turnout Times by Station



The following charts outline the 80th percentile travel times for each station. The travel time is measured from the time the apparatus leaves the station, to the time it arrives at the incident.

FIGURE #16: 2019 Travel Times by Station

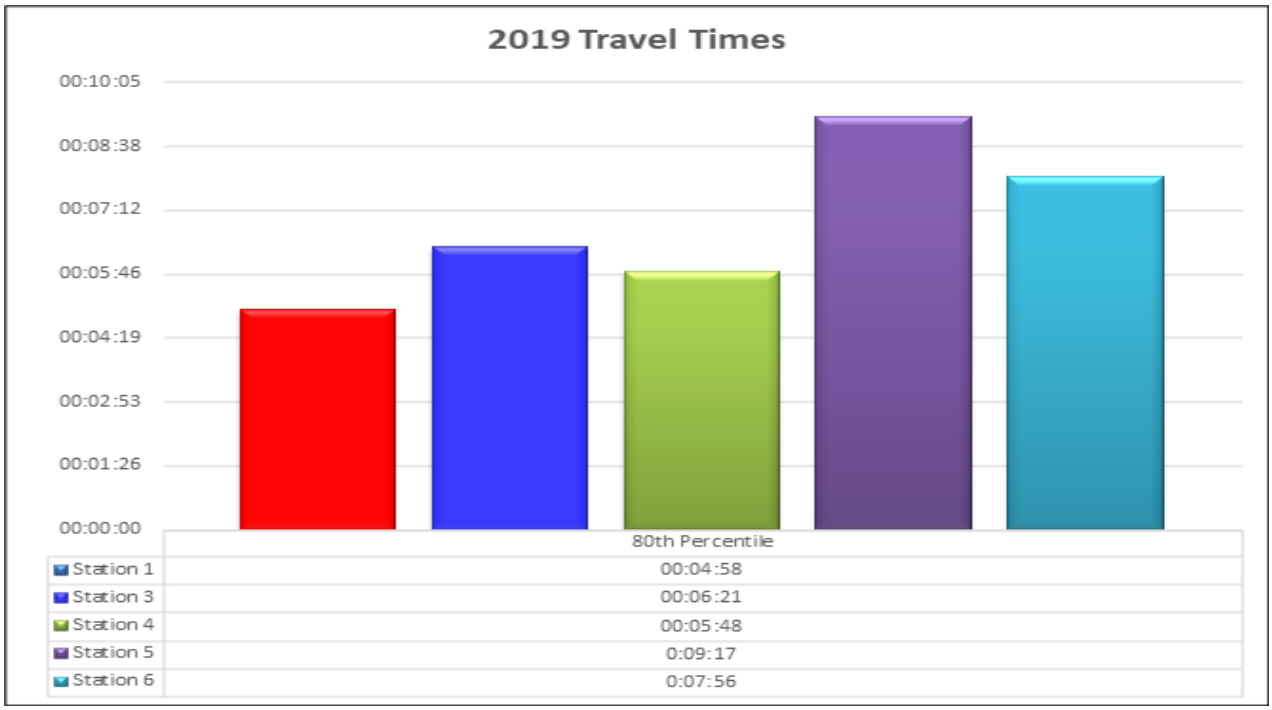
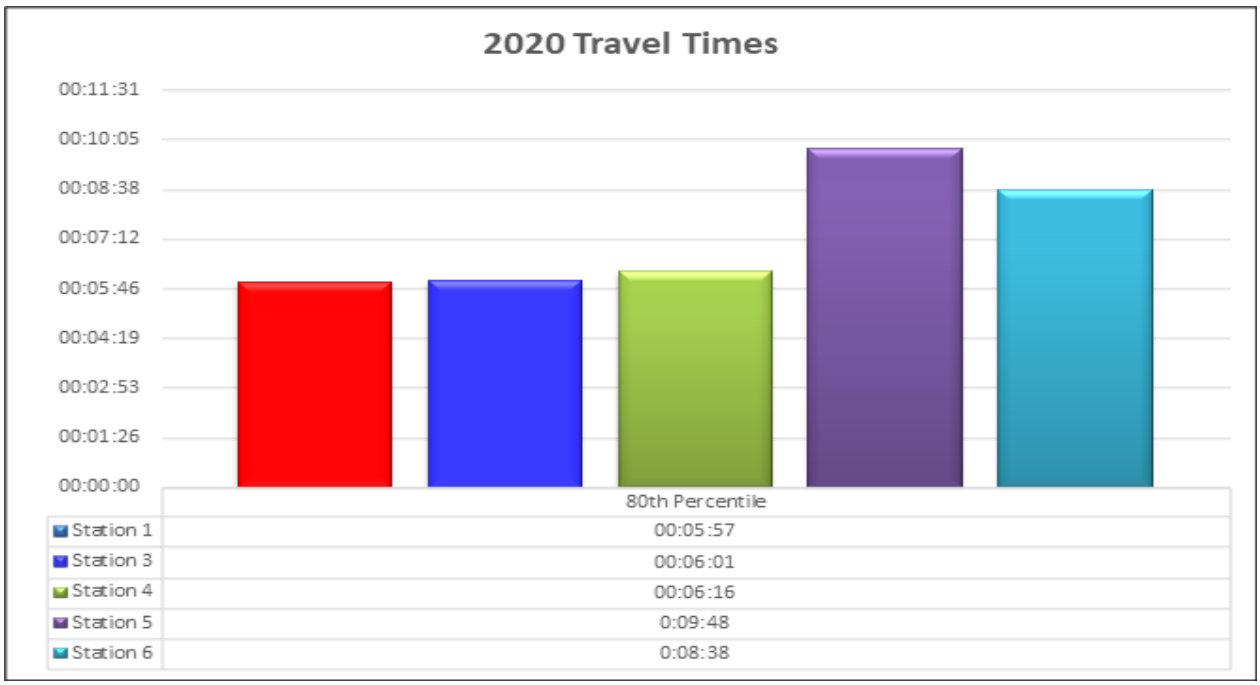


FIGURE #17: 2020 Travel Times by Station



The following charts outline the 80th percentile response times for each station. The response time is measured from the time the call is received, to the time the first apparatus arrives at the incident.

FIGURE #18: 2019 Response Times by Station

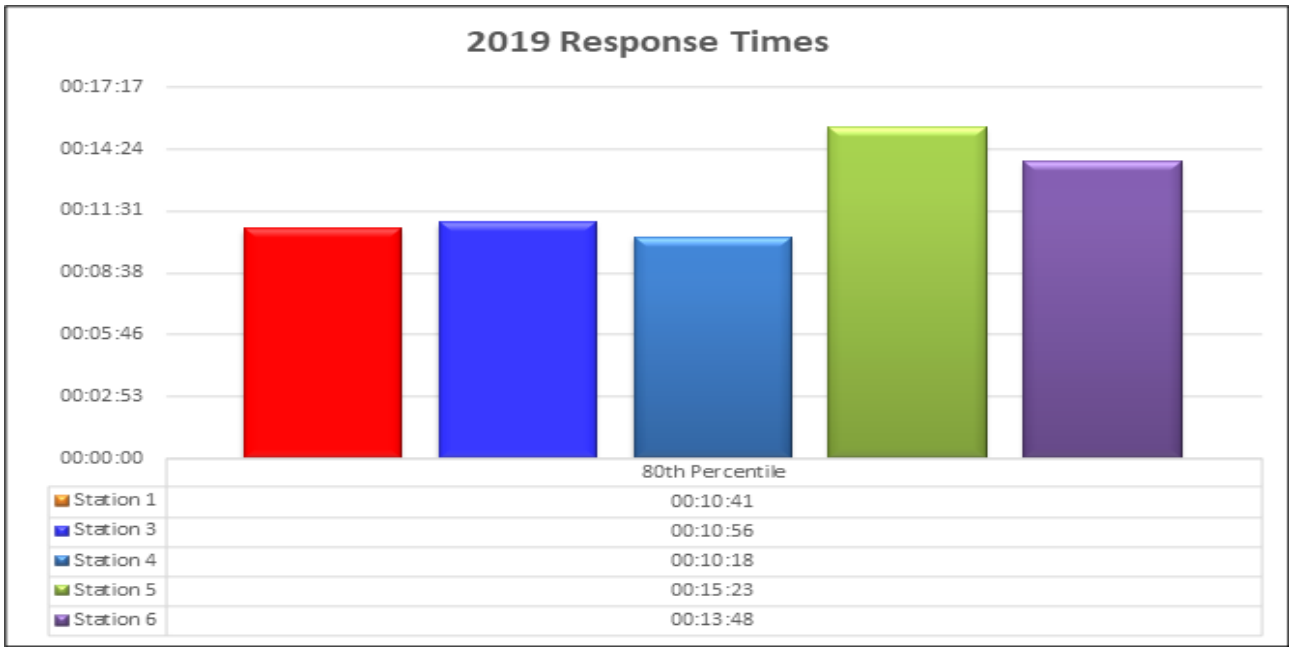
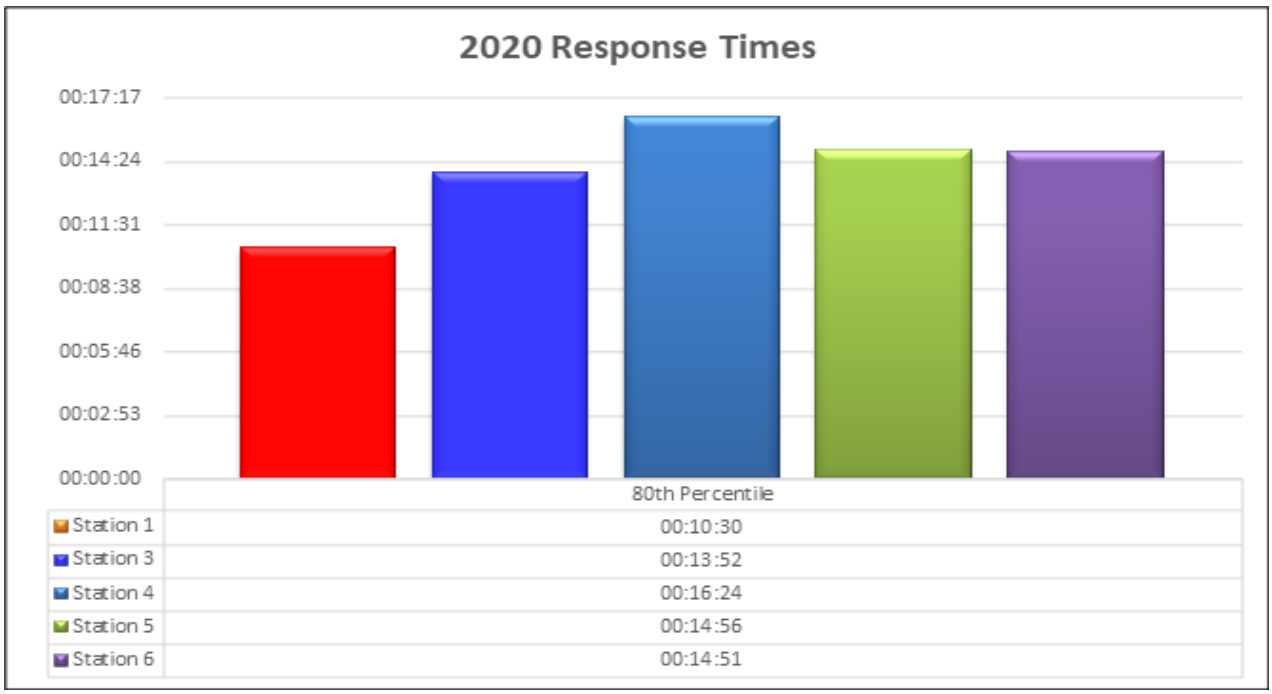


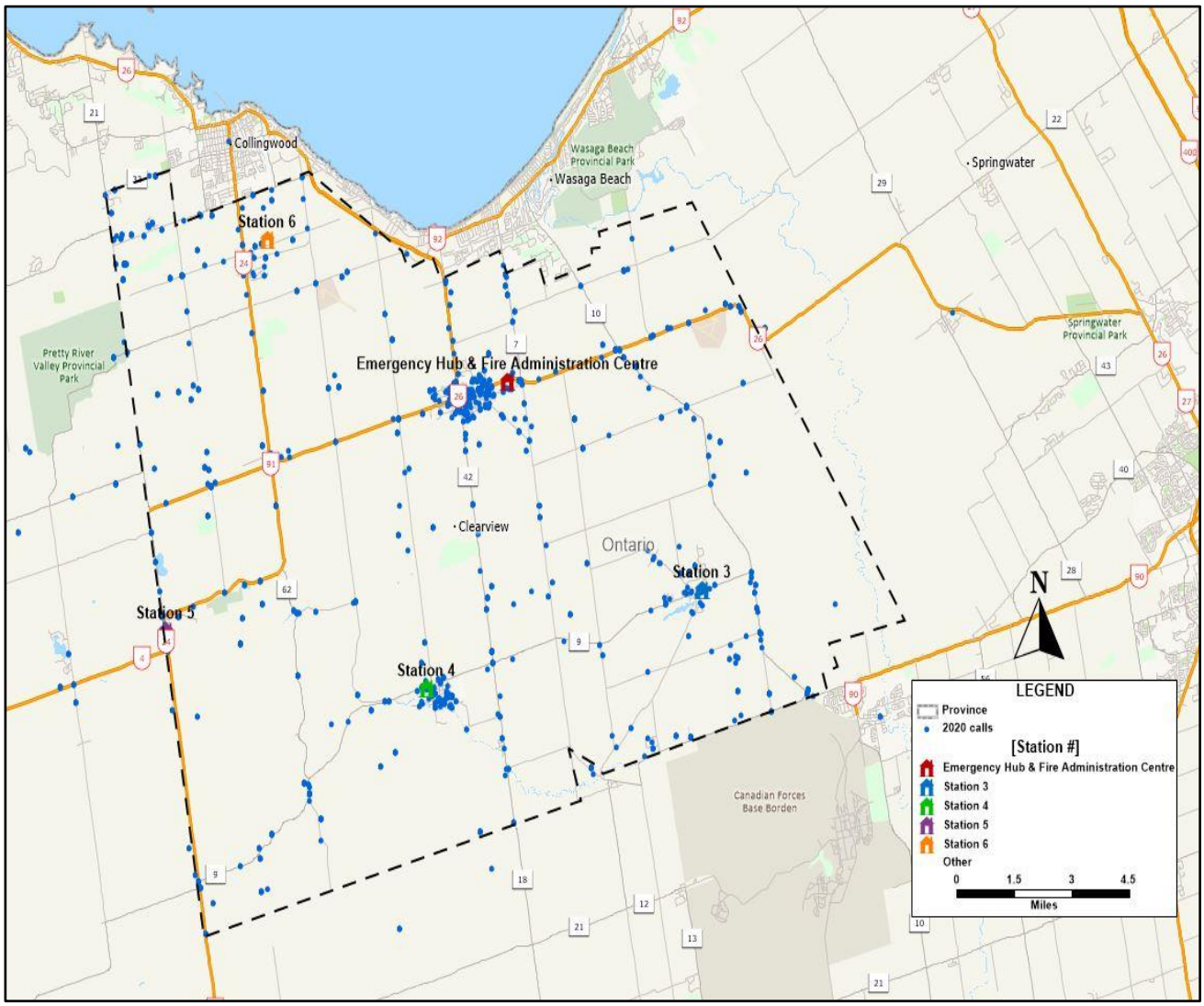
FIGURE #19: 2020 Response Times by Station



The 2018 data may be viewed in Appendix F.

Another useful tool in measuring fire service response can be done through pinpointing where the bulk of the emergency responses are occurring. This clustering of responses will help to identify where most calls are occurring, which will indicate if the present fire station locations are adequately positioned, or if there a shift in call locations that would suggest the possible need for the relocation of a fire station.

FIGURE #20: 2020 Call Location Map



The majority, of the calls occur in the areas covered by the Stayner (Station #1), New Lowell (Station #3), and Creemore (Station #4) fire stations.

Although the NFPA response times are not mandated, it would be beneficial for the Fire Chief to have a response time goal supported by Council as a benchmark. As such, it is recommended that the Fire Chief present a response time goal for the approval of Council (which may reference NFPA 1720 –

the expectation of 10 staff in 10 minutes (80th percentile)), and that performance measures are continuously monitored. This recommendation is only meant to provide CFES a goal/ guideline to aim for, not as a mandated expectation.

5.1.3 Station Assignments

The following table indicates the number of firefighters currently assigned to each station. It should be noted that Station 2 at Sunnidale Corners was closed several years ago. The table below identifies the number of firefighters assigned to each station.

Due to the municipality's COVID -19 policy regarding vaccinations, the CFES on January 9th, 2022, placed 11 firefighters on leave, due to the lack of documentation indicating that they are in the process of or have received all the inoculations. The Township's policy is that employees are to be fully vaccinated.

TABLE #7: Staffing Assigned to Each Station

Station	Captains	Lieutenants	Firefighters (Currently active)	Comments
Stn. # 1 Stayner	1	2 (1 vacant)	19	(2 potentially lost with COVID Policy, 3 recruits to graduate Dec. 15, 2 FFs in promotional process for Jan.)
Stn. # 3 New Lowell	1	2 (both vacant)	16	(7 potentially lost with COVID Policy, 3 recruits set to graduate Dec. 15, all eligible Officers are affected by nepotism policy and/or do not have the certifications to become an Officer)
Stn. # 4 Creemore	1	2	12	(5 potentially lost with COVID policy, 3 recruits set to graduate Dec. 15)
Stn. # 5 Singhampton	1	2 (2 vacant)	8	(2 potentially lost with COVID Policy, 1 is the only Officer, 4 recruits set to graduate Dec. 15, 1 FF has entered the promotional process for Jan.)
Stn. # 6 Nottawa	1 (currently vacant)	2 (1 vacant)	21	(6 potentially lost with COVID Policy, 1 of which is the Lieutenant. There are no eligible Officer candidates due to lack of experience, 1 recruit set to graduate Dec. 15)
Totals (active members)	**4**	**6**	**76**	**86 including all officers and firefighters**

A recruit class graduated and received their station assignments in mid-December 2021 In the first quarter of 2022 another recruit class is scheduled. Total complement of firefighters when all positions are filled, as per the E&R By-Law, is 130. The department has never seen more than 106 members.

5.1.4 Medical Responses

The township entered into a Medical Response Agreement with the County of Simcoe with the most recent document dating back to 2016. The current agreement states that the Departments will respond to all types of medical emergencies based on whether they are responding under Level "A" or "B". Those calls deemed as those most likely to require an immediate critical intervention to save a life are categorized as Level B. Other calls where agencies wish to provide a higher level of service are

categorized as Level A. medical aid response will be activated when the call information indicates that the patient meets specified criteria.

The firefighters are trained to the basic life support (BLS), which includes defibrillation by way of the Quality Care Program provided by County of Simcoe Paramedic Service (CSPS). To help offset the cost of medical supplies borne by the township, there are provisions within the agreement for the exchange of equipment, provided it is compatible with items used by CSPS. These items include:

- Defibrillator pads
- Backboards, straps, splints, lifting carrying devices
- Cervical Collars
- Oxygen masks
- Oral airways
- Bag Valve Masks

The replacement costs of first aid supplies such as bandages along with personal protective equipment (PPE) are the responsibility of the township.

The firefighters have been permitted to administer naloxone, epinephrine (Epi-Pens) and glucagon to patients that may require it, provided they have completed all the required training requirements. There are several training requirements established, and if a member has not completed this mandatory training, each year, they are not permitted to administer any medication. It should be a priority of CFES personnel to complete the training component and recertify as required in the medication administration program.

Some fire services have reviewed the benefits of firefighters administering acetylsalicylic acid (ASA) to those with a cardiac emergency. The CFES has no plans of investigating the benefits of the firefighters administering this medication in the future on the advice of their medical director.

The following table outlines the number of medical calls that each station had between 2018 and 2020. As the COVID-19 pandemic effected many factors of life in 2020, many fire services saw a reduction in the call volumes, especially tiered medical. CFES did not experience a significant change to the number of calls that were medical related.

TABLE #8: Total Number of Medical Calls by Station from 2018 to 2020

Station	2018	2019	2020
Station 1 - Stayner	229	195	192
Station 3 – New Lowell	48	77	53
Station 4 – Creemore	67	99	79
Station 5 – Singhampton	13	10	17
Station 6 – Nottawa	48	39	34

5.1.5 Burning Complaint Calls

On occasion, some residential bonfires are larger than permitted within the municipality's open air burning By-Law 14-06 and result in a complaint being called into the fire dispatch centre. Clearview's open-air by-law was last updated in 2014. Clearview should review the current by-law and update it to meet current requirements and changing circumstances.

The by-law should reference OFC Article 2.4.4.4 regarding Open Air Burning.

5.1.6 Technical Rescues and Hazardous Material Responses

Fire services are being called upon to provide enhanced level of service including technical rescues and hazardous material responses. The Ontario Ministry of Labour, Section 21 committee for fire services develop guidance notes for fire services to follow as best practises and direction from the OFMEM in these responses. Firefighters should be trained to the awareness level for technical rescues and HAZMAT responses as a minimum. The awareness level is an introduction to the rescue or HAZMAT incidents but does not allow for the mitigation of the incident.

The following list identifies the level of response CFES provides:

- **HAZMAT –** CFES is member department of the HAZMAT response program established between the municipalities of the County of Simcoe and Barrie Fire & Emergency Service.
- **Elevator Rescue –** Training for elevators must meet the requirements of the Technical Safety Standards Authority (TSSA).

Clearview has entered, into a Memorandum of Understanding (MOU) with the City of Barrie and its fire service for the mitigation of the following technical rescue disciplines:

- Confined Space
- Trench Rescue
- Low/High Angle Rope Rescue
- Ice/Water

To CFES's credit they are striving towards responding to the operations level for low/slope rope rescue and ice/water rescues. Equipment is being purchase and training has begun.

5.2 Dispatching Services

CFES receives its dispatching services from the Barrie Fire & Emergency Service (BFES). Based on information received, along with a review of the dispatching data, it would appear that CFES is receiving adequate dispatching services.

BFES is also responsible for activating the paging over the portable radios and real time texting (RTT) systems to alert the volunteer firefighters to respond. The CFES uses the interactive app, "Sinirji Responder" to communicate with the firefighters that there is a call. The app identifies to the firefighters that there is a fire call.

The agreement with Barrie Fire details a fee for services provided along with related infrastructure and operations activities. The current agreement with Barrie Fire for call taking and fire dispatch reflects an effective strategy for the CFES in providing these services.

Dispatch is supported by the CAD (computer aided dispatch) software program Symposium that effectively assists with timely dispatch. Reports of each incident's dispatch log are forwarded to the Township for review and records for future reference. The CAD data is transferred to the Firehouse computer program for reports to be completed and submitted to the OFMEM. In 2022, it is anticipated that BFES will be no longer be using Firehouse and that program will no longer be supported by the company's new owner. This change may impact CFES's capital budget.

The agreement does not outline that BFES is striving to meet the requirements of NFPA 1061, *Standard for Public Safety Telecommunications Personnel Professional Qualifications* and NFPA 1225, *Standard for Emergency Services Communications*. This standard is used to identify dispatching service criteria. NFPA 1221, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, speaks to the infrastructure and redundances required when operating a communications centre. It is recommended that future agreements include clauses identifying these NFPA Standards.

Recommendation #19: Clearview dispatch agreement with Barrie Fire & Emergency Service to include references to NFPA 1221, 1225 and 1061.

Rationale: To ensure that CFES's dispatching service meets the NFPA Standards.

5.2.1 Radio System

Radio systems have many technological advancements every year, making it difficult for fire services to maintain current standards. Some of these technologies are:

Simplex vs Repeater Radio Signals

A simplex radio system is best explained as radios that talk directly to each other (i.e., radio to radio). Radio signal strength using a simplex system is not as strong as using a repeater; a repeater system receives a radio message and then rebroadcasts it at a higher strength, thus providing better coverage. Most fire services operate a repeater system for the enhanced radio signal.

Analogue vs Digital

An analogue signal weakens as it travels further way from the radio that sent the signal; a digital radio signal maintains the same strength no matter how far the signal goes.

CFES has upgraded their mobile and portable radios in 2015 to the digital platform using repeaters.

There are currently two transmitter sites in Clearview and a third is being added. Each tower site has back-up battery power. If power is out long-term, generators may be used to ensure radio operations. The firefighters are notified of a call by text message or pager and use the "Who is Responding" app which identifies the availability of firefighters to respond to a call.

CFES has interoperability with surrounding fire services. There is no interoperability with any other emergency services such as the OPP and CSPS.

Large amounts of steel are often used in building construction. This structural component inhibits radio transmissions. The topography of the township may also affect the quality of radio signals. CFES has enhanced the quality of radio transmissions by operating mobile repeaters that are available in the two Chief's vehicles and the Rescue vehicle out of Stayner.

Radio terminology for fire services is, for the most part, standard across the country. Specific words/ phrases are used to convey important messages to everyone on the fireground, which in some cases may prevent injuries or the death of a firefighter. It is important that officers and firefighters alike, of all ranks, be familiar with and use the proper radio terminology at the incident.

5.2.2 Next-Generation Communications (NG9-1-1)

The 9-1-1 Central Emergency Reporting Bureau (CERB) for Clearview is through the Ontario Provincial Police at their communications centre in North Bay. Emergency 9-1-1 calls are directed to the police service and then directed to the emergency service that is required by the caller (i.e., ambulance or fire). The Emergency Management office of the County of Simcoe is responsible for the coordination and operation of the 9-1-1 system in Simcoe County including the separated cities of Barrie and Orillia, Canadian Forces Base Borden, and the two indigenous communities.

In June of 2017, the Canadian Radio-television and Telecommunications Commission (CRTC) created regulations regarding the next-generation communications for 9-1-1 centres. This modern technology will "…enable Canadians to access new, enhanced, and innovative 9-1-1 services with IP-based capabilities, referred to as next-generation 9-1-1 (NG9-1-1) services. For example, Canadians could stream video from an emergency incident, send photos of accident damage or a fleeing suspect, or send personal medical information, including accessibility needs, which could greatly aid emergency responders."[12] The following is an excerpt from the CRTC website regarding the program and its benefits for enhancement to public safety communications.

> ***Establishment of new deadlines for Canada's transition to next-generation 9-1-1***
>
> *The Commission sets out determinations in relation to new deadlines and other matters for the implementation and provision of next-generation 9-1-1 (NG9-1-1) networks and services in Canada, so that Canadians can access new, improved, and innovative emergency services with Internet Protocol-based capabilities. The Commission aims to maintain the NG9-1-1 framework roadmap for the establishment of NG9-1-1 networks and the introduction of NG9-1-1 Voice, albeit with new, extended deadlines.*
>
> *Specifically, the Commission directs NG9-1-1 network providers, by 1 March 2022, to, among other things, establish their NG9-1-1 networks, complete all NG9-1-1 production onboarding activities, and be ready to provide NG9-1-1 Voice, wherever public safety answering points (PSAPs) have been established in a particular region.*
>
> *The Commission also directs telecommunications service providers (TSPs) to (i) make the necessary changes to support NG9-1-1 Voice in their originating networks that are technically capable of supporting NG9-1-1 Voice, including completing all NG9-1-1 production onboarding activities and testing activities, by 1 March 2022; and (ii) begin providing, by 1 March 2022, NG9-1-1 Voice to their customers served by networks that are*

[12] Government of Canada, Canadian Radio-television and Telecommunications Commission, "Telecom Regulatory Policy CRTC 2017-182, Next-generation 9-1-1 – Modernizing 9-1-1 networks to meet the public safety needs of Canadians", last modified June 1, 2017, https://crtc.gc.ca/eng/archive/2017/2017-182.htm

technically capable of supporting NG9-1-1 Voice, wherever PSAPs have been established in a particular region.

With respect to the implementation and provision of real-time text (RTT)-based NG9-1-1 Text Messaging (NG9-1-1 Text Messaging), the Commission is not establishing new deadlines as part of this decision. Instead, the Commission requests that, once standards are sufficiently advanced with respect to RTT callback and bridging, the CRTC Interconnection Steering Committee (CISC) file a report with the Commission with recommendations related to the provision of NG9-1-1 Text Messaging for all stakeholders.

Further, the Commission directs, among other things, incumbent local exchange carriers (ILECs) to decommission their current 9-1-1 network components that will not form part of their NG9-1-1 networks by ***4 March 2025*** *or earlier if all the TSPs and PSAPs in an ILEC's operating territory have completed their transition to NG9-1-1.*

Moreover, the Commission directs Northwestel Inc. to inform the Commission, by 22 June 2021, of its intent to either (i) comply with the new NG9-1-1 implementation deadlines as determined in this decision, or (ii) file for the Commission's approval, by 1 October 2021, an updated transition plan including the location of NG9-1-1 points of interconnection and timelines for the establishment of an NG9-1-1 network in its incumbent territory, wherever PSAPs have been established.

Finally, the Commission is adjusting the deadlines for the CISC Emergency Services Working Group to file certain reports. [13]

Current Condition

Next-generation 9-1-1:

As noted in the CRTC excerpt, March 4, 2025, is the deadline to decommission current 9-1-1 network components that will not form part of the NG9-1-1 networks. The Fire Chief must ensure that CFES is a stakeholder at the steering committee table through direct involvement or as part of the regional committee for this implementation plan.

The municipalities must understand that there will be significant expenses for the fire dispatch to implement NG 9-1-1 and the Barrie Fire & Emergency Service will likely increase fees for all fire departments it dispatches to cover these additional costs.

[13] Government of Canada, Canadian Radio-television and Telecommunications Commission, "Telecom Decision CRTC, Establishment of new deadlines for Canada's transition to next-generation 9-1-1", last modified June 4, 2021, https://crtc.gc.ca/eng/archive/2021/2021-199.htm

Currently there is no firm understanding as to the costs that are going to be incurred with the implementation and annual costs of NG9-1-1.

Some fire services that have a communications centre have budgeted as much as $1M for the upgrades to 9-1-1.

5.3 Health & Wellness

Health and wellness of suppression staff is critically important. Due to the nature of volunteer firefighters maintaining a separate primary vocation, a focus on fitness can be overlooked. The inherit nature of firefighting is both stressful and physically demanding. During the review by EM&T, it was noted that some of the fire stations have been equipped with workout facilities to ensure that staff can keep fit, which helps to reduce work related injuries. The fire department should work towards adding fitness equipment to additional fire stations. It would be a great gesture for municipalities to permit the department member's family the opportunity to use the facilities, once COVID-19 restrictions are lifted.

Many fire departments routinely test their firefighters to meet occupational fitness tests delivered internally or by a third-party. NFPA 1582 details basic expectations placed upon firefighters. CFES is encouraged to review these and incorporate them into both candidate testing and firefighter fitness and functionality. All active CFES personnel are required to successfully complete the CFES Physical Abilities Test annually.

NFPA 1582 *Standard on Comprehensive Occupational Medical Program for Fire Departments* identifies 14 essential job tasks that detail the physical and physiological strains placed on firefighters. The standard outlines the requirements for a department's medical program including certain conditions that may pose a risk to firefighting. As the core determination for the physicality of firefighting, it is important that CFES continues to understand the expectations they are placing on their personnel.

These job tasks are listed in the Standard as - **5.1 Essential Job Tasks and Descriptions**

> **5.1.1** The fire department shall evaluate the following 14 essential job tasks against the types and levels of emergency services provided to the local community by the fire department, the types of structures and occupancies in the community, and the configuration of the fire department to determine which tasks apply to their department members and candidates:
>
> - While wearing personal protective ensembles and self-contained breathing apparatus (SCBA), performing firefighting tasks (e.g., hose line operations, extensive crawling, lifting, and carrying heavy objects, ventilating roofs or walls using power or hand tools, forcible entry), rescue operations, and other emergency response actions under stressful

conditions, including working in extremely hot or cold environments for prolonged time periods.

- Wearing an SCBA, which includes a demand valve-type positive-pressure facepiece or HEPA filter mask, which requires the ability to tolerate increased respiratory workloads, exposure to toxic fumes, irritants, particulates, biological (infectious) and nonbiological hazards, and heated gases, despite the use of personal protective ensembles and SCBA.
- Depending on the local jurisdiction, climbing six or more flights of stairs while wearing a fire protective ensemble, including SCBA, weighing at least 50 lb (22.6 kg) or more carrying equipment/tools weighing an additional 20 to 40 lb (9 to 18 kg).
- Wearing a fire protection ensemble, including SCBA, that is encapsulating and insulated, which will result in significant fluid loss that frequently progresses to clinical dehydration and can elevate core temperature to levels exceeding 102.2°F (39°C).
- While wearing personal protective ensembles and SCBA, searching, finding, and rescue-dragging or carrying victims ranging from newborns to adults weighing over 200 lb (90 kg) to safety despite hazardous conditions and low visibility.
- While wearing personal protective ensembles and SCBA, advancing water-filled hose lines up to 2 ½ in. (65 mm) in diameter from fire apparatus to occupancy [approximately 150 ft (50 m)], which can involve negotiating multiple flights of stairs, ladders, and other obstacles.
- While wearing personal protective ensembles and SCBA, climbing ladders, operating from heights, walking, or crawling in the dark along narrow and uneven surfaces that might be wet or icy, and operating in proximity to electrical power lines or other hazards.
- Unpredictable emergency requirements for prolonged periods of extreme physical exertion without benefit of warm-up, scheduled rest periods, meals, access to medication(s), or hydration.
- Operating fire apparatus or other vehicles in an emergency mode with emergency lights and sirens.
- Critical, time-sensitive, complex problem solving during physical exertion in stressful, hazardous environments, including hot, dark, tightly enclosed spaces, that is further aggravated by fatigue, flashing lights, sirens, and other distractions.
- Ability to communicate (give and comprehend verbal orders) while wearing personal protective ensembles and SCBA under conditions of high background noise, poor visibility, and drenching from hose lines and/or fixed protection systems (sprinklers).
- Functioning as an integral component of a team, where sudden incapacitation of a member can result in mission failure or in risk of injury or death to civilians or other team members.
- Working in shifts, including during nighttime, that can extend beyond 12 hours.

The 14 essential job tasks explained in NFPA 1582 lay the groundwork for NFPA 1583 *Standard on Health-Related Fitness Programs for Fire Department Members.* NFPA states that "this standard outlines a complete health-related fitness program (HRFP) for members of fire department involved in emergency operations to enhance their ability to perform occupational activities and reduce the risk of injury, disease, and premature death".

The applicable portion of the standard comes from section 4.1 wherein it states: **4.1 Program Overview**

> **4.1.1** The fire department shall establish and provide a health-related fitness program (HRFP) that enables members to develop and maintain a level of health and fitness to safely perform their assigned functions.
>
> The occupational health and safety program provides direction on performing assigned functions in a safe manner. The health-related fitness program allows members to enhance and maintain their optimum level of health and fitness throughout their tenure with the fire department. Education, one provision of a health-related fitness program, allows a means for improving health and fitness throughout the organization. The organization needs to provide the recognition and support to ensure the promotion and success of this process. Health and fitness needs, to become a value within the organization just as safety is a value.
>
> Data suggest a correlation between the following:
>
> - A proactive approach to health and fitness and a decrease in debilitating occupational injuries.
> - A reduction in workers compensation claims and a decrease in acute and chronic health problems of fire fighters.

Combining the health-related fitness program with a proactive occupational safety and health program provides a fire department with the level of quality needed for its members. It is suggested that, as part of a larger commitment to firefighter health and wellness, CFES review the 14 essential job tasks from NFPA 1582 and adjust their program pertaining to their recruitment and testing process and seek options for offering personnel the ability to exercise and maintain fitness levels as explained in NFPA 1583. This may include memberships to fitness centres.

5.3.2 Cancer Prevention

In recent years there has been a more intensive review of cancer prevention and a correlation of the disease to firefighting. The focus has been on contamination control surrounding fire incidents. From pre-fire, incident duration, to cleaning and decontamination post-fire, all aspects of prevention are currently under review by all levels of fire service management. Departments are limiting

opportunities for cross-contamination and secondary exposure of carcinogens involved in fire scenes. It is suggested that, as part of a larger commitment to firefighter health and wellness, CFES begin work on a cancer prevention program. This may include items such as, but not limited to:

- Post-fire decontamination of PPE
- Firefighter hygiene at fire scenes
- PPE during handling of contaminated gear/equipment
- Documenting potential exposures
- Reducing exposures to diesel exhaust

The stations are equipped with diesel exhaust systems to reduce exposure to vehicle exhaust. Diesel exhaust has been contributed to health issues when people are exposed to it over long duration. By having these systems in each station, the health concern is greatly reduced. The Ministry of Labour, through its Section 21 Committee, sets out fire service guidance notes. *Guidance note 3-1 Reducing Exposure to Diesel Exhaust* states, "Employers must: make sure the fire station is adequately ventilated by either natural or mechanical means so that the atmosphere does not endanger the health and safety of workers."

In reviewing the PPE, also known as structural firefighting ensemble, it was noted that some of the gear is nearing ten years of age. A plan has been established to review PPE inventories and forecasted replacements are identified so that budgetary submissions are effectively managed. This is important to note as NFPA 1851 Standard on *Selection, Care and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting* states in Chapter 10: "Structural fire fighting ensembles and ensemble elements shall be retired in accordance with 10.2.1 or 10.2.2, no more than 10 years from the date the ensembles or ensemble elements were manufactured."

The appendix to that section also references that "…it is imperative that the protective elements be routinely inspected to ensure that they are clean, well maintained, and still safe". CFES has a program that ensures PPE is inspected and cleaned in-house, and that there is a cache of used gear that can accommodate a portion of the Department. CFES has not reviewed options on the issuance of a second set of gear for firefighters.

CFES has an SOP on PPE/bunker gear inspections and cleaning. The SOP lacks instructions for ensuring the correct re-assembly of the ensemble, including how to check that the Drag Rescue Device (DRD) has been properly installed.

The Occupational Health & Safety, Section 21 Health & Safety Guidance Note 6-1, Hygiene and Decontamination[14], states: "Employers should develop a program of decontamination, which includes engineering controls (ventilation), decontamination procedures, personal protective equipment (respiratory protection devices, gloves) and hygiene practices, in consultation with the joint health and safety committee."

Cancer prevention may begin at the scene of a structure fire. The bunker gear becomes laden with contaminants, smoke, and off gas for some time after a fire. Decontaminating the firefighters at the scene of the fire, ensuring contaminated gear is not worn back to the station or transporting it in the cab of the vehicle is the step in the right direction of cancer prevention. The department should invest in some on-scene decontamination equipment and bags for transporting the bunker gear back to the station.

Guidance Note 6-1 also states that soiled equipment should not be:

- Transported inside the cabs of fire department vehicles
- Transported inside personal vehicles
- Taken into living quarters of a fire station (this should include any areas of the fire station other than the apparatus bays)
- Taken into the firefighter's home

Cancer prevention does not stop at just taking off and bagging the bunker gear for cleaning at the fire station; the individuals clothing may also contain cancerous contaminants. The hygiene and decontamination program should also address the firefighters personal clothing or uniform worn in the fire. This may imply requiring the firefighters to have spare clothing at the fire station or in their personal vehicle, available for them to change into after they have a shower at the station. This clothing should also be washed at the fire station and not taken to the residence to be washed as they are then introducing the contaminants to members of their family.

CFES does not have their Rehabilitation/ Decontamination program developed and should work towards its completion, training, and implementation in 2022. A fire department exposure report should be completed each time a firefighter is exposed to the products of combustion.

Recommendation #20: CFES invest in decontamination equipment and develop the appropriate policies and SOPs in performing decontamination of firefighters at the scene of a fire.

[14] "6-1 Hygene and decontamination," Ontario, last modified October 21, 2019, https://www.ontario.ca/document/firefighter-guidance-notes/6-1-hygiene-and-decontamination

Rationale: To be proactive in reducing exposure to cancer causing agents.

Recommendation #21: CFES develop a formal health and wellness program that includes all facets of health and wellness, including physical fitness, mental health, and cancer prevention.

Rationale: The firefighters are the most valuable asset that CFES has. Having these programs in place will promote healthy living and bring the fire department inline with provincial guidelines and regulations.

CFES has developed a presentation on cancer prevention as it relates to the use of Self-Contained Breathing Apparatus (SCBA). It was also noted that CFES falls short of its requirements under the *OH&S Act* and Regulations, and applicable Canadian Standards Associations' Standards and Regulations. There is the lack of an established respiratory protection program and accompanying policies and SOPs, as outlined in the Section 21 Guidance Note 4-9.

Recommendation #22: CFES develop and implement a Respiratory Protection Program in accordance with applicable Acts and Regulations.

Rationale: This will bring CFES inline with CSA, Standard Z94.4-11, Selection, Use and Care of Respirators and Section 21, Guidance Note, 4-9 Respiratory Protection Program.

5.3.3 Sense of Well Being

Clearview has included all its fire department staff in the Employee Assistance Program (EAP) offered through its municipal employee benefits. The municipality does have their firefighters and their spouses enrolled with the Volunteer Firemen's Insurance Services (VFIS) for life insurance.

In 2017, emergency services organizations were required by the Ministry of Labour to submit a Post Traumatic Stress Disorder (PTSD) Prevention Plan. This was to coincide with PTSD and Occupational Stress Injuries (OSI) to be considered as workplace injuries and be compensable through the Workplace Safety & Insurance Board (WSIB). The CFES has a couple of presentations available to its members and their families outlining what PTSD is, the dangers it presents, training, on-going support, early intervention, WSIB claims management, recovery, and return to work. The department also has a peer support group in place.

PTSD awareness training for recruits and existing staff is essential in establishing minimum levels of resiliency. Through their PTSD Prevention Plans, departments are expected to outline a full-spectrum plan. They are encouraged to address four pillars of managing a PTSD/OSI event: prevention, peer support, treatment/recovery, and return to work programs.

Firefighters, like law enforcement, paramedics, EMTs, and military, are regularly exposed to critical incidents. A critical incident can be described as:

- A near miss that threatened the health and safety of a member of the Department. This can include a situation where a member of the CFES experienced an event that could have resulted in significant harm or was a close call where they escaped significant harm.
- The suicide or attempted suicide of a co-worker
- The sudden death of a fellow firefighter
- The loss of a patient after a rescue attempt
- The death or a critical incident involving a child
- A prolonged rescue or incident with excessive media coverage

Being regularly exposed to horrific events can lead to critical incident stress. A critical incident can best be described as a normal reaction to an abnormal traumatic incident. Exposures to critical incidents can impact firefighters later in life and it is critical to have a formal record of critical incidents to assist a firefighter for a workplace injury if they are struggling with PTSD.

Mental health takes on a critical importance in high-stress, high-risk work settings, such as those in which first responders operate, where their own functioning has serious implications for the health, safety, and security of the public they serve.

Municipalities generally have EAPs, but these tend to have gaps when dealing with long-term mental health injuries because of continued exposure to extraordinary and horrific events in a firefighter's career. Being proactive in recognizing the reality of this issue and committing resources to educate members and provide mental health services prior to a member suffering from PTSD is the best recourse. It is common practise that all fire department members and their families be enrolled in the municipal EAP.

The CFES PTSD Peer Support Terms of Reference includes:

- An introduction about the plan including its Purpose and Scope
- Roles and Responsibilities of Senior Management, Managers/Supervisors, Peer Support Members and Employees
- Peer Support Member Eligibility outline
- Training for Peer Support Members
- Supplemental Support and Community Resources
- Peer Support Model and Structure

As mentioned, CFES has developed a couple of presentations on PTSD for the members of the department to view. While these are informative, in the best interest of addressing mental illness, a printed handbook is advised to effectively support the other initiatives.

The CFES PTSD Program Plan should identify the following:

- Prevention and education
- Screening and initial intervention
- Ongoing intervention
- Support, WSIB claims management, recovery and return to work
- Overview of PTSD, risk factors, signs, and symptoms.
- Legal requirements of the municipality under the *OH&S Act* of Ontario
- Organizational PTSD practices (promoting good mental health)
- Organizational anti-stigma practices
- Roles and responsibilities for prevention, intervention, recovery, and return to work
- Training on awareness and anti-stigma, recognising the signs and symptoms and responding to signs of PTSD, post-exposure education and awareness
- The role of the CFES Peer Support Squad

It is advised that the program also include comments regarding confidentiality of information that is shared with the Peer Support Squad.

Many fire services have a Chaplaincy Program run by a local chaplain to serve the needs of some of the members of the department. CFES had a chaplaincy program at one time but is no longer active. Fire services that have a Chaplaincy Program can call their chaplain for support after a death, or for mental well-being and/or family related issues that arise with the members of the department. CFES should review the program they had in place and consider re-implementing it as a means of supporting their members and families.

Firefighters are the greatest asset of any fire service, and it is imperative that their mental well being is addressed in a genuine, consistent, professional, and above all, confidential manner. As such, the Fire Chief should meet with the township's administrative staff who oversee the EAP to review opportunities of including the firefighters and their families into the program.

5.4 Recruitment & Retention of Volunteer Firefighters

Recruitment and retention of volunteer firefighters is becoming more of a challenge within the fire service with the increase in annual training and certifications that must be committed to, consequentially impacting staff retention.

There is also the challenge relating to responses during the daytime hours from Monday to Friday due to fact that many volunteer firefighters are either at work, school, or taking care of family. In some instances, members have had to leave the department to move closer to their primary work location, education facilities, or family needs.

Going to a composite or full-time service is a large cost to the community ($2-2.5 million per 24/7 fire truck staffed by career firefighters) and therefore many communities that have decided to move to this staffing model accomplished this in stages. One such model is adding full-time firefighters Monday to Friday on eight-hour dayshifts to meet the needs of the community when volunteer availability is at its lowest. This model has an annual cost of approximately $500,000-600,000 for one truck during these hours. The costs for additional staff go beyond wages including additional equipment and gear for the firefighters, along with any improvements required for the fire station itself, such as living quarters. Any consideration to moving to such a full-time model must be seriously evaluated.

The CFES model of a volunteer fire department is a very cost-effective form of fire protection for a community of its size; therefore, the Township should invest in additional opportunities to improve those times when current responses are not meeting the standards or needs of the community. Clearview has taken advantage of fire service agreements with neighboring fire departments to minimize costs and provide timely response. The Township should continue to investigate other opportunities identified in this report to maintain a volunteer service and keep the cost minimized.

In a nationwide survey, the leading reasons why people stop volunteering include the following:

- No time to volunteer
- Conflicts within the organization
- Organizational leadership created an adverse atmosphere
- Too much training
- Attitude of existing personnel towards newcomers
- Criticism received from senior staff
- Lack of camaraderie

While some issues may be uncontrollable, other issues can be mitigated such as conflicts within the organization, leadership, training, attitudes, criticism, and camaraderie.

CFES has had an ongoing recruitment program; this program could be promoted by advertising signs at the entrances to the Township, the fire stations, and a notice placed on the Township's website. Members of the department have also been spreading the word that the fire department is looking for new members. These efforts have brought forth some success. Each year a recruit class is established due to the higher-than-normal turnover of firefighters that Clearview experiences. Of

those on the department there is a high number of firefighters that have less than three years experience on the department.

Some reasons for the limited response may include:

- Lack of marketing the fire service as a volunteer department, as some newcomers may not be aware it is.
- A weakening sense of community could develop amongst the visible minority demographic, in part because the fire department may not adequately reflect the diversity of the people it serves.
- The ratio of men versus women in the fire service giving the misconception that a department is looking for firemen versus firefighters.
- The lack of the fire department to fully connect with the community by promoting the activities and services provided by the CFES.
- Possible negative image of the department presented to some residents living within the community.
- Many residents are in the township only on weekends as their permanent residence is in the GTA.

The following list are suggestions that CFES may not already be doing to recruit new members. This may include:

- Placing ads in local media such as newspapers, rate-payers association newsletters, and websites along with working with local radio stations to provide public service announcements about the recruitment.
- Posting notices on social media such as Facebook, Twitter, and Instagram including increasing the fire department profile by posting pictures of the firefighters in action and statistics on social media outlets.
- Posting signage on the front lawn of the fire stations.
- Develop a recruitment video and use local students to help develop and film the video as part of their required community service time.
- Start to recruit new members when they are young by starting a Junior Fire Fighter Club. This has been very successful in the United States and is beginning to grow in Canada as a way of gaining interest in the fire service at an early age.
    - The local youth centre would be a great asset in seeing this to fruition.
    - Make sure those that join the Club feel that they are important and welcomed to the department and are valued members of the fire service family.
- Promote and conduct an information night at a couple of the stations for potential new members to drop by to see what being a firefighter is all about.

- Encourage attendees to bring the entire family and have activities for children to promote that the fire service is a family unit.

During the CFES's information sessions, which lasts two hours, current members provide tours of the stations and apparatus. Administration outlines the expectations of members of the department such as the number of fire calls and training sessions they must attend; the honorarium that is paid; satisfaction gained knowing that you are helping your neighbour on the worst day of their lives; describe the life-long friendships that are started; understand what true teamwork is like and the bond that is garnered between firefighters.

CFES has taken extra steps in their recruitment process which include:

- Sponsoring a junior firefighter camp, in 2022.
- Have spoken to guidance councillors at the high school, and requested they promote to students that live in either the Singhampton or Creemore areas to get involved with the fire department. By the students being involved allows them to complete their required co-op hours for school, with the hopes that when they become of age, they too may become interested in joining CFES. This promotes the department to not only the students, but also their family members.
- In Creemore, CFES has joined up with the youth group to generate knowledge and interest in the fire department.

Diversity can only thrive in a welcoming, inclusive environment. This will require a plan on making new members feel accepted and welcomed. Some fire services need to change in their attitudes and overall fire department culture. They may need to involve some of the female firefighters in the recruitment process. Include a focus on visible minorities that live in the community. Fire departments tend to recruit in a one-dimensional fashion which is not always successful. Departments need to adapt the recruitment strategies to better suit the individuals in the community and recruit those that believe in the department's Mission and Values. CFES includes female members during the recruitment interviews and physical testing, which demonstrates to the public that CFES is an inclusive fire service. Females make up 20% of the department's compliment of firefighters. Of the latest recruit class, that CFES held, nine of the 14 candidates were females.

CFES has established a recruitment committee composed of both male and female firefighters of the department.

The building of new fire stations may pique a potential new recruit's interest and could be the turning factor for some who wish to join the department.

Further opportunities to increase retention may include:

- Assign a seasoned member to mentor each rookie when a new member joins the department, which CFES implemented and was not successful, given that, there are opportunities to try this once again.
- Conduct firefighter appreciation events (e.g., dinner, BBQ) where members are recognised by Council for their long-term, outstanding service, or something exceptional they did at a call. CFES has annual awards banquet where firefighters and their partners are invited, along with Council members. The firefighters are recognized with numerous awards that night, including years of service, life saving actions, which the person saved presents the award, while enjoying a dinner and socializing with members they may not see that often.
- Council take time to acknowledge the employers of the firefighters for permitting their participation in the fire department and/or permitting them to leave work to attend fire calls. Clearview Council is very supportive of its fire service and the members of it. There have been situations that members did a very good action, that was worthy of being recognized in front of Council.
- Survey other fire services to compare pay rates and adjust the honorarium accordingly, again which CFES has done and resulted in the members being paid in the upper 50% of those surveyed.
- Implement a service recognition pay incentive. This might include paying extra in the form of a 5 to 10% pay increase for every 5 years they have been on the department; this would prevent the loss of years of experience.
- Performance pay for those who reach high percentages of attendance at training sessions and fire calls.
- Offer enhancements to benefit packages as many may not have benefits at their primary place of employment, and some are self-employed. Such packages would include basic dental, drug, and eyewear coverage.
- Offer a RRSP/pension savings plan with contributions from the Township after they have been a member of the department for a predetermined length of time.
- Provide excellent training opportunities to make them want to remain a member of the fire department. Make the training sessions fun and memorable.
- Recognition and support of those who want to attend regional courses, which sometimes requires firefighters using their vacation time from their full-time employers.
- The implementation of an “on call or platoon” program that would pay a week or weekend stipend to the volunteer firefighters s who commit to being available by signing up for weekdays and/or weekends.
- Education assistance programs to support staff in their professional development.
- Maintain and improve morale by providing modern trucks, equipment, and stations.

- Endorse that each station designs their own logo for their station promoting their region of the township or the services they provide. They could include a tasteful mascot character. These could be placed on t-shirts and perhaps the apparatus as a sense of pride. Every CFES station has their own logo which were designed by the members of that station, which are displayed on the fire apparatus and association t-shirts.
- Provide strong leadership that focusses on the Mission, Vision and Values of the department, if established, while resolving conflict resolution in a timely manner.
    - If Vision, Mission and Values Statements have not been established and approved by Council within the E&R, establish a committee to develop them. These will help provide guidance on the direction the department should embrace. Recently it was announced that the department wanted to update their statements. While having received some positive feedback, a committee was formed but failed to meet.
- Conduct exit interviews with those that leave the department to understand their reasons for leaving. While there may be simple reasons, there could be a deep-rooted issue that administration may not be aware was occurring such as taunting, bullying, harassment, a feeling of not being welcome, etc. In Clearview this is offered to the members, but few take advantage of it, which is addressed in a recommendation found within this section.
- If new stations are built in the future, include a small fitness room for the firefighters to work out. When Station 1 in Stayner was built, a fitness room was included which members may use.
- Foster the history of each fire station by creating displays of pictures of past members, events, and apparatus, to instill a sense of pride on how far the department has grown. This is quite evident in every fire station. There is pride in the rich history of the department, which include photos, plaques, helmets of days gone by and even antique fire apparatus. A heritage room added to the next new station would be a place to showcase the antique apparatus.
- Providing a reduction or refund on property taxes to those firefighters that own a home as a form of appreciation.

Some of the above suggestions may imply an expense; however, there is increased value in keeping trained personnel longer, which ultimately saves on the ongoing training of new firefighters. It costs the Township a large sum of money to train and equip new firefighters, therefore it is important that a means to retain their investment is developed and supported by Council. CFES has a social committee that plan events ranging from family movie nights at the fire station, to bubble soccer, Barrie Colts hockey games, attending a Toronto Blue Jays game, wing nights etc., but the lack of participation by the members, has been disappointing

CFES staff should be commended for the previously noted efforts that are being made to recognize and support their volunteer staff.

Another indicator for making decisions regarding staffing, is tracking the number of volunteer firefighters that arrive at the fire station to respond. If, for example, the standard set by a fire department is that three or more volunteer firefighters must arrive at the station before the fire truck can respond, this should be monitored along with how many times the department is unable to assemble the needed personnel to effectively respond based on time of day and day of the week. Continued monitoring of this data will assist with future fire service needs.

Some volunteer fire departments have created a platoon style system in which the volunteers sign up for days, weeks, or even weekends to ensure an adequate level of staffing coverage. This is a method CFES could consider implementing. Some costs (depending on the department) are associated with this type of platoon system such as a small stipend to pay for volunteers that need to stay in township for response. Any system that will provide more consistency with response by the volunteers is worth experimenting with.

The cost of housing to live in the Clearview is ever increasing and making the purchase of a home cost prohibitive resulting in residents leaving for areas that are more affordable. The prices in housing have significantly raised since the beginning of the pandemic and many families made the decision to move to rural Ontario, rather than live in the Greater Toronto Area, due to cost of living there.

Some municipalities, including Clearview, are looking at options to assist in attracting new members to the department including the attainment of affordable rental units for single firefighters such as a house where several could reside. Some municipalities are reviewing options that include purchasing existing three or six-plex apartment buildings for families to reside. Other municipalities are reviewing the option of adding residential units onto a new fire station for firefighters.

Some employers have resorted to obtaining trailer housing that includes personal bedrooms, shared kitchen, washrooms with showers, and laundry room. This is a way of attracting new firefighters at an affordable rate of rent. This has been very successful for employers in the oil industry to draw in employees (e.g., in Fort McMurray). Locally, it as been used with Deerhurst Resort in Huntsville for their seasonal staff to reside.

As with many volunteer fire departments across Canada, the number of individuals that come forward to join a volunteer fire department are diminishing. There are many reasons for this as mentioned previously. The CFES has seen a significant turn over of firefighters each year and the number of residents willing to join the department may begin to diminish. CFES will need to monitor future recruitment success and call volumes and may need to investigate whether it would be in the best interest and service provision towards an enhanced composite fire department with the hiring of additional full-time staff who hold multiple rolls within the department such as fire prevention/suppression.

Recommendation #23: CFES to investigate the costs and benefits of increasing full-time fire prevention/suppression personnel as the community grows and volunteerism declines.

Rationale: *By doing so the department will be in the position of ensuring the availability of firefighters to respond to calls, especially during the daytime, while addressing the increased demands placed on fire prevention. The demands for fire inspections and public education will increase as new residential developments are completed, along with commercial/industrial occupancies. Fire prevention will require additional resources to meet this ever-increasing demand.*

SECTION 6

Facilities, Vehicles, & Equipment

Emergency Management & Training Inc.

SECTION 6: FACILITIES, VEHICLES, & EQUIPMENT

6.1 Fire Station Review

This section will assess facility needs and station locations and provide recommendations for future locations relative to current and future service delivery demands and applicable standards. Consideration for potential needs for relocation or additional stations will be made. This review consisted of a walkthrough of the fire stations as a visual inspection; no destructive testing or engineering assessment was conducted.

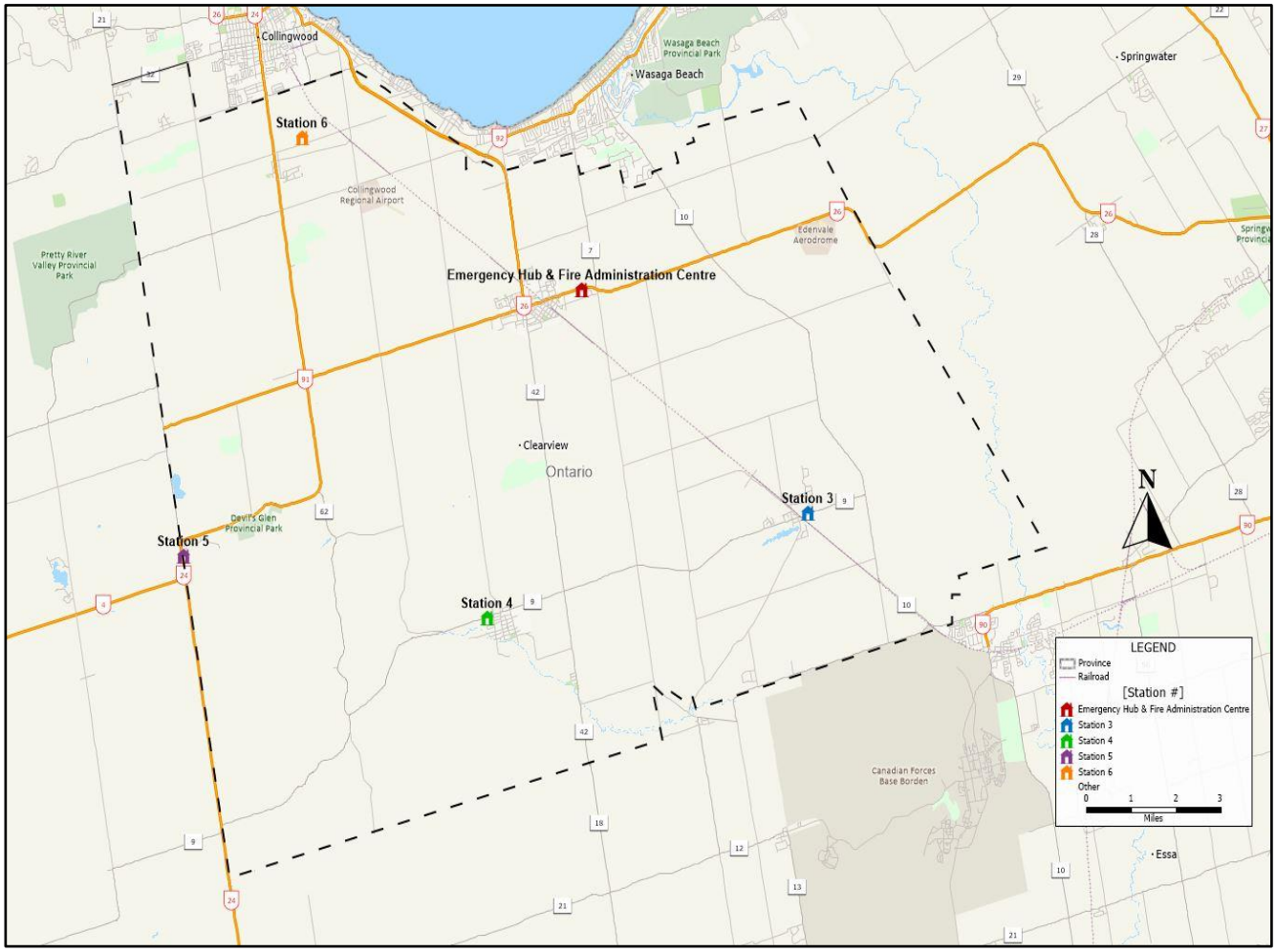
CFES operates from five fire stations which are in Stayner, New Lowell, Creemore, Singhampton, and Nottawa. A sixth station, previously referred to ask Station 2, located at Sunnidale Corners was closed several years ago; out of historical significance the number two was not reassigned to another station.

Historically fire station may be looked upon as a focal point for a community. They have traditionally been located at main roadways in communities to provide quick access and response by the firefighters. They are built with the intent to last 30 to 40 years, and as such the planning and design should not solely address the needs of today but those of the department in 20 years.

Fire stations should be positioned to offer the most efficient and effective response to the community they serve. Centering them within a determined response zone that is simply based on “timed” responses is not always the best option to implement. Fire station location depends on many factors such as key risks within the response zone, future growth of the community, and station staffing (full-time or volunteer firefighters). Another consideration is the geographical layout of the community that can include natural barriers or divides, such as water, that makes it necessary to have some stations located within proximity of each other.

Fire stations should be situated to achieve the most effective and safe emergency responses. Distance and travel time may be a primary consideration; however, if a basic expectation of response time is set by the community’s decision makers, then a more realistic level of service and fire station location criteria can be identified.

FIGURE #23: CFES Fire Station Locations



The stations are well maintained, apparatus is clean and in a state of readiness, and the stations are tidy and organized with little clutter. In contrast, there are some basic features of any fire station that were notably missing in several of the CFES stations, including:

1) Oil/ debris separation tanks with proper collection/drainage
2) For those stations that are on sewers, may not have back flow valve protection
3) Automatic stand-by generators
4) Gender-neutral locker rooms
5) Emergency decontamination and eye wash station
6) Red/ green lights at the overhead doors that notify the drivers when it is safe to proceed out of the station
7) Sensors on the overhead doors that when blocked, prevent the overhead door from lowering

8) Scan entry codes for security, due to the turnover of staff
9) Electrical panels on the apparatus floors that may require shielding to prevent water from entering them
10) Upgrade in exhaust extractions system in one station.
11) If funds are available, install windows in a few of the stations to allow natural light in, which could present a savings in the electrical costs.
12) Storage is an issue in every fire station no matter the community
13) Bunker gear should be kept off the apparatus floor in a separate room with negative pressure to reduce the risk of exposure to the chemical given off during the off-gassing process.
14) Lack post-disaster engineering
15) Not compliant with *Accessibility for Ontarians with Disabilities Act* (AODA) requirements
16) Fitness rooms
17) Offices for officers and firefighters to have access to computers
18) Safe rooms incorporated into the main entrance

6.1.1 Station #1, Stayner

This station was built in 2012 and is in very good condition and is well maintained. The offices for the chief officers and support staff are located here. There is a large meeting room for the firefighters to train in that has audio-visual equipment available. A small kitchen with cooking facilities is also available for use.

The apparatus bays are large and spacious for additional equipment to be stored in the future, with the appropriate separation tanks for the runoff while washing the vehicles. The station has its own septic system and weeping beds. The driveway and parking lot are in excellent condition.

When the station was built, both the OPP and CSPS took advantage of being involved in its build by having their own offices included. While each paid for their own portion of the building, there have been some issues when it comes to cost sharing for repairs, etc. To avoid similar challenges in the future, it might be better if the township were to build the structure and lease the office/ apparatus bays to the other clients.

While there is a locker room present, it is used primarily by members of the OPP and CSPS.

The following deficiencies were noted:

- Lack of red/green lights at the overhead doors which identify when it is safe to proceed out of the structure.
- Sensors are not on the overhead doors to prevent them from closing when there is an obstacle in the doorway.
- There have been ongoing issues with water leaks in some areas of the building; these are being addressed.
- Security should be upgraded to swipe card scanners for the entire building away from the punch keypad found in some areas, due to the turnover of staff.
- There is a need for the proper bio-hazard disposal bins, and removal by a company that specializes in this.
- Emergency eye wash/ decontamination shower
- As with many fire stations, storage is lacking resulting in items being left on the apparatus floor.
- Not post disaster designed

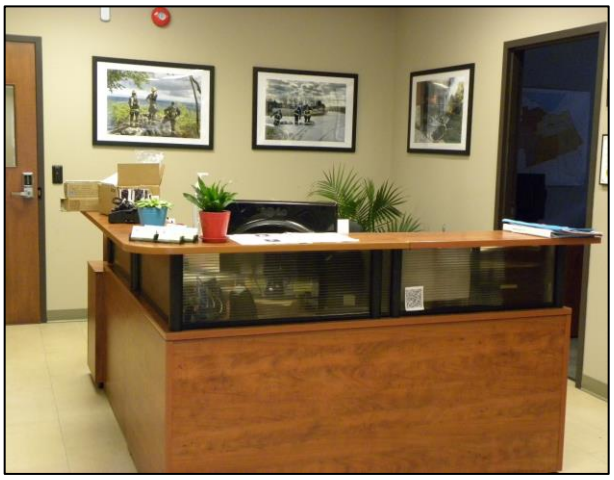
The CFES Apparatus Bays

County of Simcoe Paramedic Bays

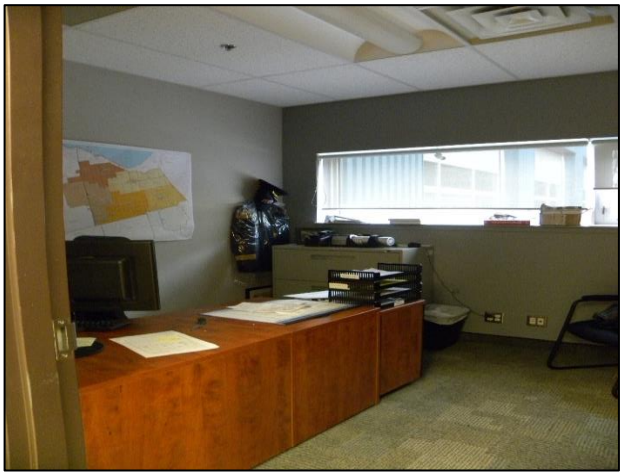
Front Entrance (also serves as a Safe Room)

Reception Desk

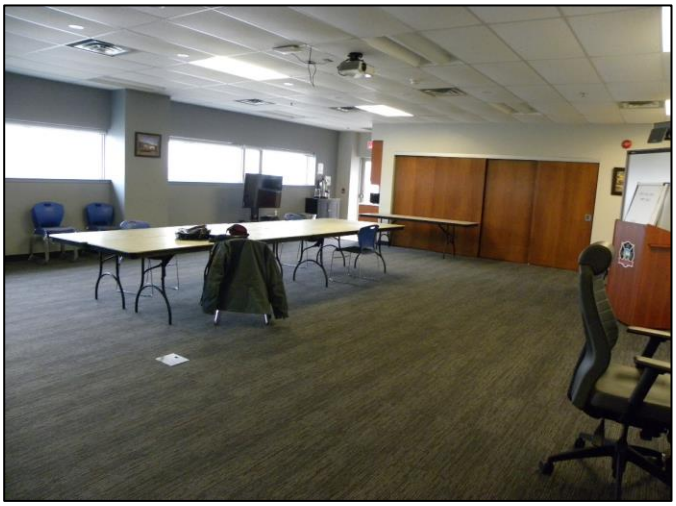
Fire Chief's Office



Deputy Fire Chief's Office

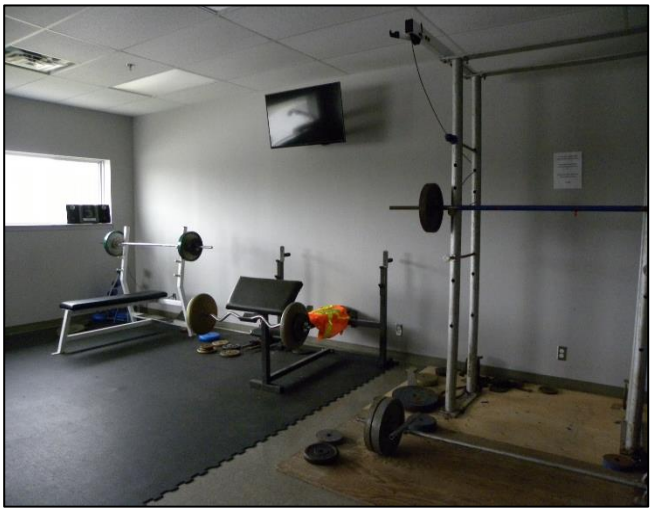


Meeting / Training Room



Apparatus Bays

Fitness Room



Kitchen

Paramedic Quarters

Ambulance Bays

6.1.2 Station #3, New Lowell

This station was built in 1964, when the area was known as the Township of Sunnidale. The building is showing significant signs of wear and in need of replacement as it does not meet current industry best practices for a volunteer fire department. There is evidence of many water leaks, both past and present. Plans are underway for the replacement of this station in its present location in conjunction with a new works department building.

Water is seeping in behind the spray-on insulation in the apparatus bays and the ceiling tiles in the training room, which is a repurposed portable classroom. Without destructive testing it is unknown if there is asbestos in the spray-on insulation or mold cultures behind the drywall of the classroom. There has been a history of mold found on the walls of the classroom to the extent it was also inside

the firefighters' helmets at one time. Mold and asbestos, if present, could become a serious health and safety concern.

Another area of concern is the lack of shielding over the electrical panel from water used during the washing of the trucks, on the apparatus floor and the Electrical Safety Authority should be consulted in this matter.

While the new station is in the early planning stage, the staff must continue to work from this facility which lacks a several amenities

- Gender-neutral locker rooms and proper showers
- Negative pressure bunker gear storage room
- Fitness room
- Lacks adequate storage space
- Does not meet AODA requirements for accessibility
- Security system requires upgrading to card scanning
- Windows are original and not energy efficient
- Driveway is original and breaking down
- Apparatus floor is becoming crowed for apparatus
- The roof leaks and there could be mold in the attic space
- Lacks an automatic stand-by generator
- Washrooms require upgrades

Recommendation #24: The Township of Clearview to prioritize the replacement of Station #3, in New Lowell, in 2022.

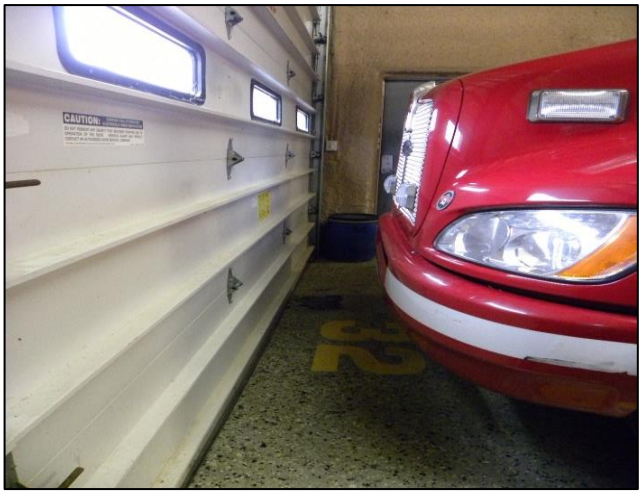
Rationale: *The need to replace this station has been recognised for several years as the current building is well past its life span. The ongoing water leaks, and the possibility of mold cultures being in the walls and ceilings is a health and safety concern.*

The front of Station 3 with the training room on its right side.

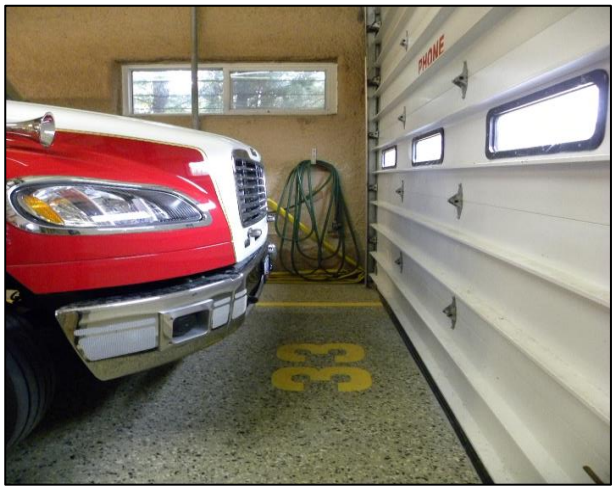
Apparatus Bays – note the spray-on insulation on the walls and ceiling

Electrical panel on the apparatus floor – note water on the floor from a leak in the roof

Apparatus parked close to the overhead doors



Entrance to classroom – not AODA compliant



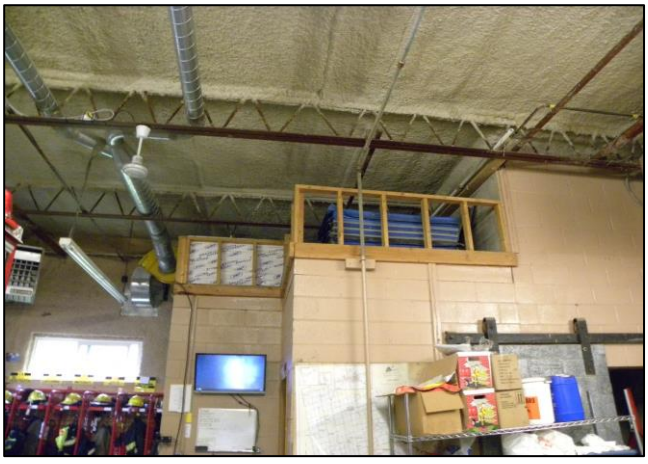
Training room

Kitchenette in training room

Water stains on ceiling tiles

Storage area on apparatus floor over the washrooms

Bunker gear stored on the apparatus floor



6.1.3 Station #4, Creemore

This station was built in 2007 and has already undergone a few interior renovations. The station overall is in good condition and will serve for years to come. If required, land is available to expand the station, which could be a future consideration.

This station lacks a few standard features, such as:

- Gender-neutral locker room
- Automatic stand-by generator (currently using a portable generator)
- The are no windows in the entire building other than the overhead doors.
- The exhaust extraction system needs to be upgraded as the current one does not serve the purpose.
- Lacks a tool/repair room
- No storage other than above the classroom and washrooms
- There are no crew's quarters or proper kitchen
- Lacks a bunker gear storeroom with negative pressure
- Should convert the keypad security to a card scan system
- Lacks separation tanks for apparatus floor drains
- Not post-disaster engineered
- Training officers' office is small
- Need for offices for the officers
- Emergency decontamination and eye wash station

Recommendation #25: The exhaust extraction system at Station 4, Creemore, be replaced and upgraded.

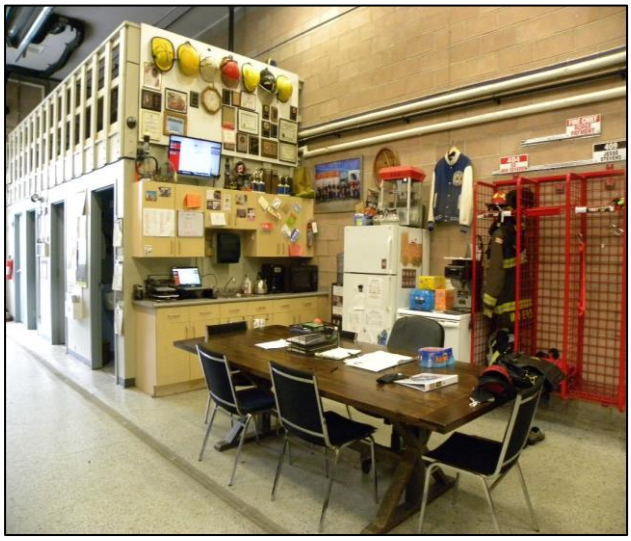
Rationale: *The exhaust extraction system that is installed in Station 4 does not function as it should. The system should have a direct connection to the exhaust pipe of the fire apparatus, such as in the units installed in all the other fire stations in Clearview. Replacing the system and having a direct connection will bring the department in line with the Section 21 Guidance Note, 3-1 Reducing Exposure to Diesel Exhaust.*

Station 4 Creemore

Apparatus Bays

Apparatus Bays – bunker gear storage

Storage Area Over the Washrooms and Electrical Room



Officer's Office

Electrical Room

Training Room

Training Officer's Office

Training Ground Behind the Fire Station

6.1.4 Station #5, Singhampton

Station #5 in Singhampton was built in 1994 and is almost identical to Station 6 in appearance and amenities. The building, for the most part, is a shell with partitions inside to accommodate washrooms, small training room, and the services room (electrical/ plumbing). The crews have made a sitting area at the back of the apparatus bays and small kitchenette.

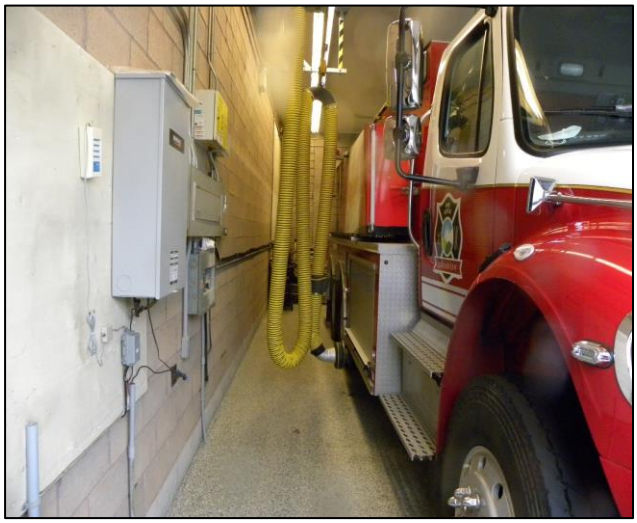
This station also has a cistern at the rear of the station that contains water to refill the water tanks on the apparatus. There is adequate property to accommodate a used portable classroom that could be converted to a training room.

The following amenities were missing or in need of attention:

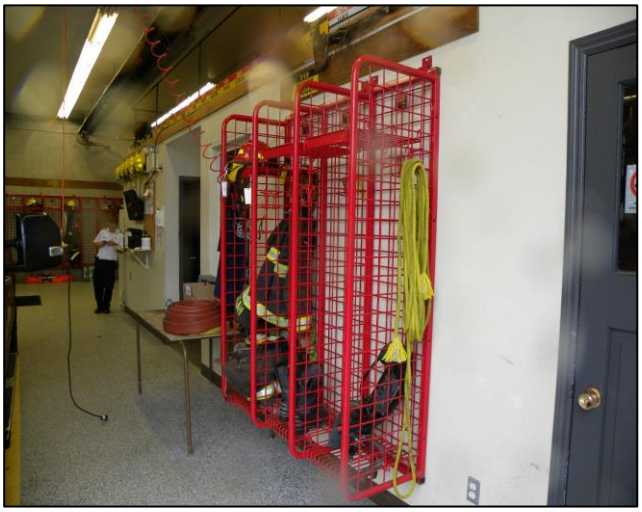
1) Emergency decontamination and eye wash station
2) Locker room
3) Fitness room
4) Storage room
5) Bunker gear storeroom
6) Offices for the officers and firefighters.
7) Red/green lights and sensors on the overhead doors
8) Electrical panels exposed to water on the apparatus floor
9) Keypad entrance codes instead of scan fobs
10) Windows

Station 5 in Singhampton

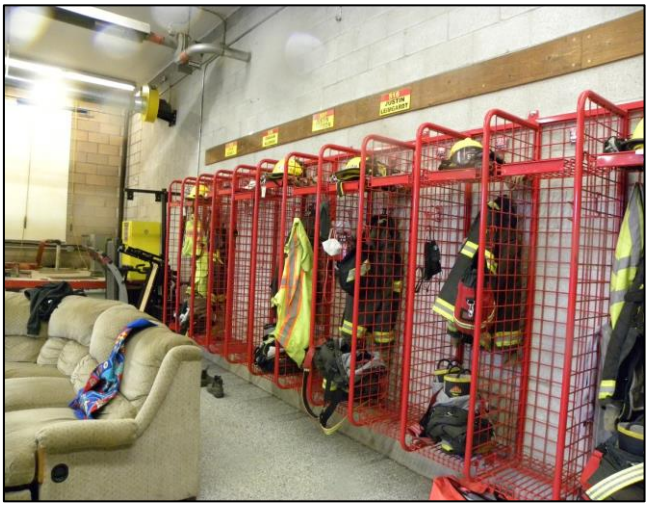
Apparatus Bays



Apparatus Bay



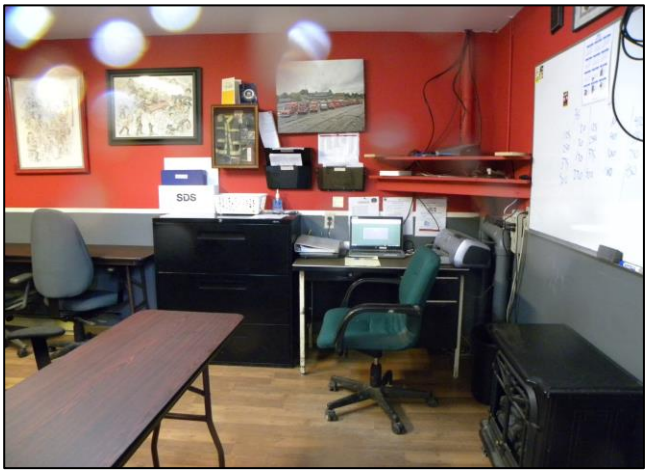
Bunker gear storage



Storage over training room

Training room

Officer's work area



Kitchenette in the Apparatus Bays

Service room

6.1.5 Station #6, Nottawa

As mentioned previously, this station is largely identical in layout and features as Station #5. Exceptions to the similarities include no cistern, and a third overhead door was installed on the side of the building so a third apparatus may be parked across the back of the apparatus bays.

There is no training room at this location, so all training is conducted on the apparatus floor. The electrical/ water services room also serves as a storeroom which has resulted congestion.

In 2021 funds were acquired for an addition to be added to this station which includes a training room and associated amenities. This will be located on the right side of the building towards the rear of the property so it will not interfere with parking accommodations.

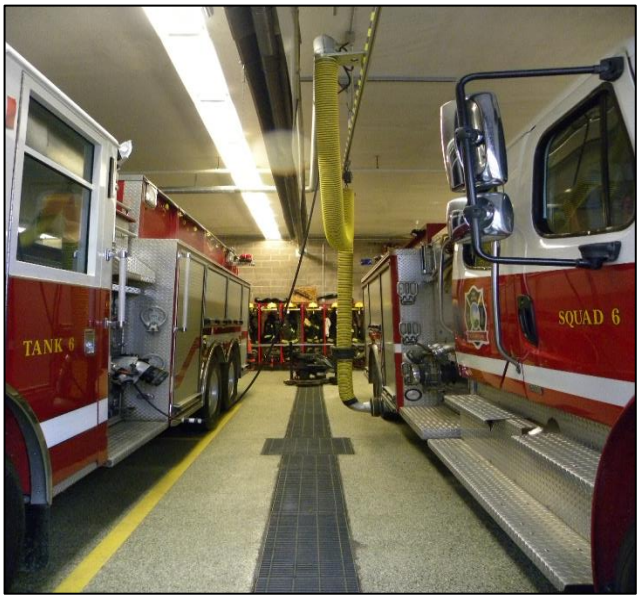
The following amenities were missing or in need of attention:

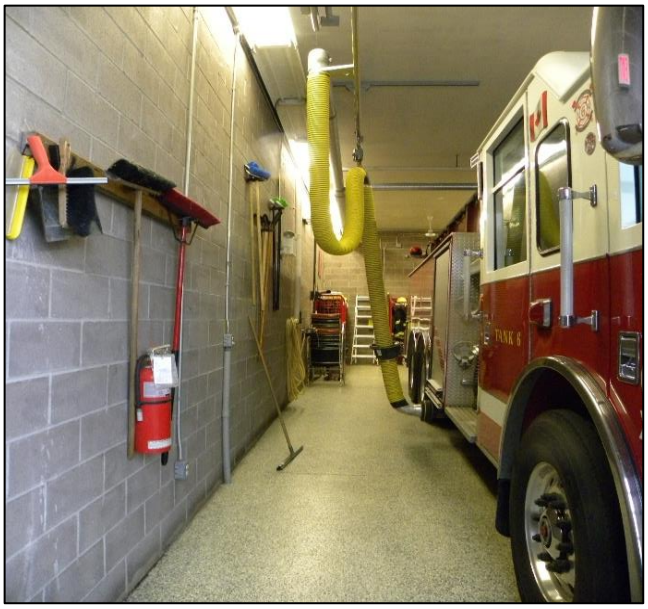
1) Emergency decontamination and eye wash station
2) Locker room
3) Fitness room
4) Storage room
5) Bunker gear storeroom
6) Appropriate offices for the officers and firefighters
7) Red/green lights and sensors on the overhead doors
8) Keypad entrance codes instead of scan fobs
9) Windows
10) Training/ meeting room (to be completed in 2022)

11) Lacks AODA accommodations
12) Automatic stand-by generator
13) Requires larger flammable liquid storage cabinet

Station 6 Nottawa

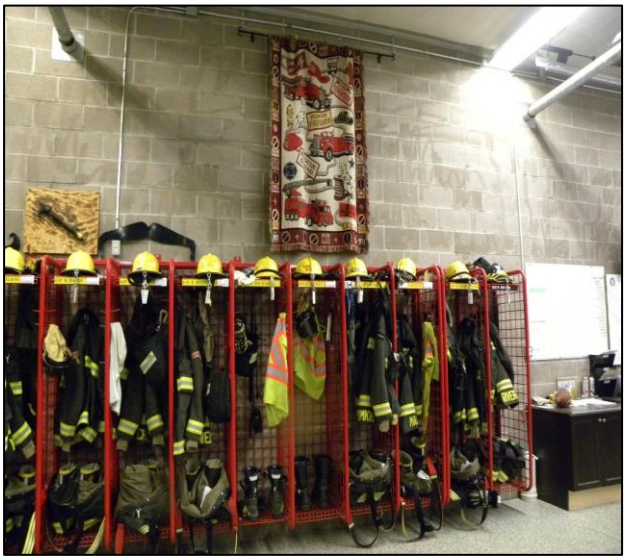
Apparatus Bays





Apparatus Bay

Bunker Gear Storage



Doorway to the washrooms, kitchenette, office, and service rooms with storage above

Service Room

Washroom with shower

Office

Training / Meeting Area

6.1.6 Fire Station Options

Traditionally, emergency response stations have been stand-alone structures. Municipalities including Clearview have been shifting to integrating services into shared-use buildings with emergency service response stations being built into community centres, libraries, public works buildings, etc.

It is common across Canada to have different emergency services co-located; this has included fire and police, fire and paramedics, or all three in the same building, similar to the CFES fire station in Stayner. These stations normally have separate quarters within the same building, with separate entrances and facilities. This permits each service to operate independently while taking advantage of the efficiencies of a single structure.

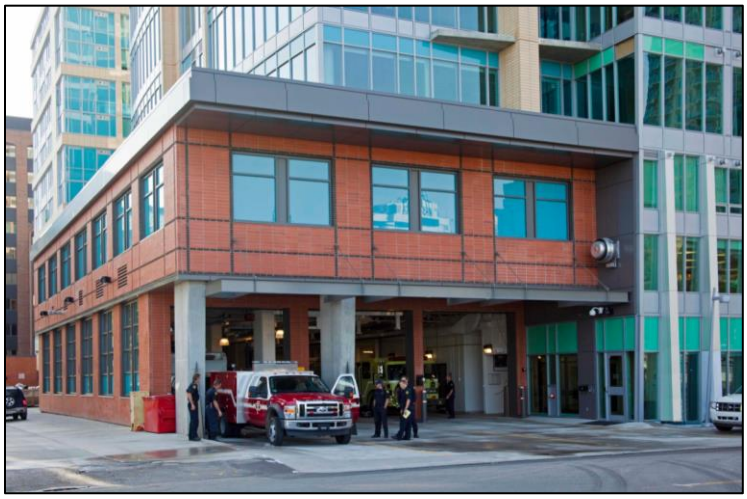
Municipalities are looking for opportunities to create more efficient use of space and financial resources and integrate municipal services within the community. There are several models that are being used in different jurisdictions including public/private partnerships, partnerships with non-profit organizations, and leasing of available commercial space.

As technology, community demographics, and operational requirements evolve, maintaining an ability to be flexible in the station design, construction, and location will benefit the community in the long-term. Leasing of a facility reduces the initial capital outlay, placing building maintenance

responsibility on the landlord and allows the municipality the flexibility to move, should there be a change in community development.

The following is the City of Vancouver Fire Station #5 that is being integrated into a community housing project run by the YWCA. The two main floors make up the fire station with the upper four floors of the six-storey building providing 31 affordable housing units for single mothers and their children.

While the fire station was funded by the City, the YWCA housing portion of the building received funding from the municipal, provincial, and federal governments as well as the YWCA who launched a capital fundraising campaign. Having the two services integrated provides a sense of safety and security for the single mothers and their children.



In Calgary, a unique fire station exists that includes a two-storey podium building with two separate high-rise towers. The 11-storey east tower contains 88 affordable housing units with the 18-storey west tower containing 132 market housing units. The fire hall is at the base of the building, composing two-storeys. This is a public/ private partnership.[15]

The City of Barrie has leased the end unit of a commercial strip mall as a fire station *(pictured below)*. The unit was constructed by the landlord to meet the city's requirements.

EXTREME fire stations are a new concept that is a Canadian built product out of Lethbridge, Alberta. It is a modular-based building, built to seismic and building code standards, using high efficiency, energy code compliant HVAC systems and fire suppression systems; these are standard on EXTREME stations.

The positive aspects about EXTREME fire stations are that they are custom built at a factory and transported to the site where they are quickly placed onsite and ready for occupancy.

[15] "838 – 4th Avenue SW," ITC Construction Group, accessed January 24, 2022, https://www.itc-group.com/project/solaire-louise-station

Extreme Fire Station Assembly (On-Site)

A typical fire station has a life expectancy of approximately 50 years before the cost/benefit ratio starts to work against the municipality in terms of maintenance, basic function, and design. The EXTREME fire stations have, the ability to meet that life cycle because they are made from steel and aluminum and additional modules can also be added if the station needs to expand its footprint.

Extreme Fire Station (Multi-Bay Example)

The West Conrad station is an example of the diversity of EXTREME fire station designs and how they can be designed and expanded to meet the customer's needs.

A partnership with non-profit organizations, EMS, or leasing of available space in a new fire station are options as municipalities become more innovative in how they incorporate a fire station into the community. This model may not work or be a fit in every community, but these options are worth exploring to decrease costs while simultaneously increasing the fire department's response capacity.

Calgary Fire Department Waldon Station

Prior to March 2021 a two-bay EXTREME fire station with appliances, diesel extraction system, exercise room and administration space, was estimated to be $2.4 million. Unfortunately, the construction industry is experiencing unprecedented spikes in building materials like wood, cement, and steel which creates challenges in projecting final price.

6.1.7 Summary

It was found that four of the five stations are in good condition and a review should be conducted to see what additions may be made to the current facilities without costing more than necessary. A priority should be red/green lights and sensors added to the overhead doors in every station as this is a safety issue and could prevent damage to the structure and apparatus.

The replacement of Station #3 should be a priority for the CFES as a health and safety consideration due to unknown components that may be evident in the building as previously mentioned. This project has been in the early planning stages for a length of time and needs to be acted upon.

Recommendation #26: Install safety features on all the apparatus overhead doors as noted.

Rationale: *Installation of sensors will prevent the door from coming down when someone is standing or walking through the doorway. They will also prevent a fire apparatus from striking it when exiting the station.*

6.2 Fire Apparatus - New & Replacement Schedules

This section assesses the general state of the Department's apparatus, vehicles, and equipment, reviewing existing vehicles and equipment condition, maintenance programs, capital replacement schedules, and plans relative to existing and expected service demands.

When assessing a fire department's ability to respond and meet the needs of the community, FUS considers the age of a fire truck as one of its guidelines. CFES endeavours to keep fire vehicles on a 15 to 20-year replacement cycle to keep them within the FUS recommendations.

When a new apparatus is ordered it should include all the required ancillary equipment, which helps ensure this equipment also follows a regular replacement schedule. Further, when the apparatus is moved to a reserve status it remains fully equipped. Once an apparatus is permanently taken out of service, the ancillary equipment could be placed in storage to be used to replace damaged items or be liquidated.

It is becoming quite common in fire services to standardize fleet and ancillary equipment. By doing so the department may realize savings in training hours and repairs as the variety of parts for repairs is lessened and the time to train firefighters on the apparatus is reduced. Additionally, the firefighters would be able to operate any apparatus in the fleet if they have the same chassis and pump.

Ancillary equipment could also be standardized such as the hose, nozzles, chainsaws, circular saws, extrication tools, SCBA, ventilation fans, foam equipment, etc. Again, there are savings in repairs and time required for training.

For the most part, the CFES is well-equipped with pumper trucks, rescue, and tankers. It also appears that there is a sufficient level of apparatus and equipment to meet the general needs of the Department. Replacement schedules are identified in the capital forecast for the fire trucks. It is worth noting that some fire departments place their tanker trucks on a 20-year replacement cycle due to the lack of use and mileage put on these specific units. To help with replacement forecasting, this is a vehicle type that can be considered 2nd line vehicle, provided it has mid-ship pump installed, and may not require replacement at the 15-year mark.

The department does not have an aerial device in service and relies on response agreements with both Wasaga Beach and Collingwood fire services for the use of their aerial devices if needed. It is recommended that the department look at purchasing an aerial device with a 16 to 22 m (55 to 75') aerial. There are multiple residential developments with residences that are three-storeys high. Currently, the department is unable to safely place firefighters on the roof for ventilation or fight the fire from above; an aerial would bridge these gaps.

The unit should be a single axle, so its ability to navigate laneways is not hindered and have a pump of at least 6,000 L/min (1,200 GPM) capacity. The acquisition of this apparatus should coincide with the purchase of an apparatus currently scheduled for replacement and operate as a front line apparatus out of Station 1, Stayner. The pumper presently in service in Stayner could be assigned to a less busy station.

An option for consideration is the acquisition of a used aerial device that has 10 years or less service time. A considerable amount of money could be saved by exploring this avenue.

An aerial device

The chief's vehicles are replaced on a predetermined schedule. These vehicles in most cases are still in very good condition and should be repurposed within the department as a support vehicle to be assigned to the Training or Fire Prevention Officers once they have served their primary purpose. Many fire services are assigning used chief officer vehicles for use as response vehicles for the firefighters to be transported to an incident instead of taking their own vehicle. There has been the need for front line apparatus to be used for business purposes rather than emergency response availability.

The following table lists the current fire apparatus, not including support vehicles.

TABLE #9: List of Current Apparatus

Asset	Estimated Useful Life	Age	Condition Rating	Pump Size/Liters of Water/Foam Capacity if applicable	Replacement Year
Pump 1 (2008 Pierce Kenworth)	20	14	Fair to Good	5,000/4,550/136	2028
Tank 1 (2010 Pierce Contender)	20-25	11	Fair to good	5,000/6,825	2030
Rescue 1 (2020 Lafleur Freightliner)	25	1	Excellent	N/A	2045
ATV 1	15	7	Excellent	Portable pump/182	2029

Asset	Estimated Useful Life	Age	Condition Rating	Pump Size/Liters of Water/Foam Capacity if applicable	Replacement Year
(2014 Kubota)					
Pump 3 (2009 Pierce Kenworth)	20	12	Fair to Good	5,000/5,625/136	2029
Tank 3 (2014 Midwest Freightliner)	20-25	7	Good to Excellent	1,820/6,825	2034
Squad 4 (2016 Pierce Freightliner)	20	5	Excellent	5,000/3,600/136	2036
Tank 4 (2018 Midwest Freightliner)	20-25	4	Excellent	1,820/11,375	2038
Pump 7 – Reserve Unit (1999 Superior GMC)	20	22	Fair	5,000/4,550/136	2019
Pump 5 (2012 Pierce Freightliner)	20	9	Good to Excellent	5,000/3,600/136	2032
Tank 5 (2014 Midwest Freightliner)	20	7	Excellent	1,820/11,375	2034
Squad 6 (2005 American Lafrance Freightliner)	20	16	Fair	5,000/3,600/136	Replacement on order with 2022 delivery.
Tank 6 (2012 Pierce Contender	20	19	Fair to Good	5,000/9.555	Will become Squad 6 in 2022

Recommendation #27: CFES to acquire an aerial device with a height of at least 22 m (75') and that the acquisition of a used device be explored.

Rationale: *CFES does not have an aerial device and must rely on using either Wasaga Beach or Collingwood's, which will take some time to travel to the location of the fire, provided they are available. Considering the height of existing structures and higher buildings being constructed, this would be a great asset to the department.*

Recommendation #28: CFES to repurpose the Chief's vehicle when they are replaced by assigning them to either the Training or Fire Prevention Officer, or to a station as a support vehicle.

Rationale: *The training officer does not have a department vehicle to use for errands and must use a fire truck from Station 4 to drive to other stations or to pick up supplies. This takes a fire apparatus out of the area, making it unavailable to respond in a timely manner. Having a support vehicle will ensure the fire apparatus are in the station when required.*

6.2.1 FUS – Vehicle Replacement Recommendations

The *Small Communities and Rural Centres* section (highlighted in green) is the recommended schedule for vehicle replacement for a township the size of Clearview. This allows for up to a 20-year replacement cycle, in which the fire vehicle can be utilized as second-line response status. It is recommended that all first-line units still be replaced by a new or younger unit when it reaches 15 years of age.

FUS definition of first line, second line, and reserve is:

- First-line is the first fire truck utilized for response at the fire station
- Second-line is the next truck to be used if the first line unit is tied up at a call
- Reserve is the vehicle kept in the fleet to be put into service if a first-line or second line vehicle is out of service.

TABLE #10: FUS Vehicle Replacement Chart[16]

Apparatus Age	Major Cities [3]	Medium Sized Cities [4] or Communities Where Risk is Significant	Small Communities [5] and Rural Centres
0 – 15 Years	First Line Duty	First Line Duty	First Line Duty
16 – 20 Years	Reserve	2nd Line Duty	First Line Duty
20 – 25 Years [1]	No Credit in Grading	No Credit in Grading or *Reserve* [2]	No Credit in Grading or *Reserve* [2]
26 – 29 Years [1]	No Credit in Grading	No Credit in Grading or *Reserve* [2]	No Credit in Grading or *Reserve* [2]
30 Years +	No Credit in Grading	No Credit in Grading	No Credit in Grading

[1]All listed fire apparatus 20 years of age and older are required to be service tested by a recognized testing agency on an annual basis to be eligible for grading recognition (NFPA 1071)

[2]Exceptions to age status may be considered in small to medium sized communities and rural centre conditionally, when apparatus condition is acceptable, and apparatus successfully passes required testing

[3]Major cities are defined as an incorporated or unincorporated community that has:

- *a populated area (or multiple areas) with a density of at least 400 people per square kilometre; AND*
- *a total population of 100,000 or greater.*

[4]Medium Communities are defined as an incorporated or unincorporated community that has:

- *a populated area (or multiple areas) with a density of at least 200 people per square kilometre; AND*
- *a total population of 1,000 or greater.*

[5]Small Communities are defined as an incorporated or unincorporated community that has:

- *no populated areas with densities that exceed 200 people per square kilometre; AND*
- *does not have a total population in excess, of 1,000.*

[16] "Insurance Grading Recognition of Used or Rebuilt Fire Apparatus," Fire Underwriters Survey, accessed January 20, 2022, file:///C:/Users/EmergencyMGT/Downloads/FUS-TechnicalBulletin-InsuranceGradingRecognitionofUsedorRebuilt%20(3).pdf

FUS is reviewed by insurance companies. By ensuring that the vehicles are being replaced on a regular schedule, the Township is demonstrating its due diligence towards ensuring a dependable response fleet for the Fire Department and the community it serves. This will keep the community's fire rating in good stance, which can also reflect on commercial and residential insurance rates.

Some fire services are no longer operating stand alone Rescue apparatus, but instead using Pumper-Rescues or a smaller Rapid Response type of apparatus, which are a multi-purpose vehicle. The apparatus is capable of pumping and carrying water, and have ample storage for equipment and hose, with the ability to carry up to six firefighters. It has been found that such apparatuses are more versatile and eliminates one dimensional vehicle.

6.2.2 NFPA – Vehicle Replacement Recommendations

Although there is no national standard that legally mandates the replacement of emergency vehicles, it must be kept in mind that it is critical to replace these and other apparatus before they become unreliable. Over the long-term, delaying the replacement is inadvisable as it will add to the overall maintenance costs of the apparatus and can influence insurance costs based on the fire department's FUS rating.

The NFPA 1911, *Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus* is an industry standard that addresses vehicle replacement. Like the FUS recommendations, this standard includes guidance on retirement criteria for fire apparatus. This standard recommends that all front-run vehicles are replaced on a 15 to 20-year cycle, depending on the community size. These replacement recommendations are for fire vehicles with pumps. For general purpose fire department vehicles, most communities refer to their municipality's vehicle replacement policies.

In relation to vehicle replacement and refurbish, the industry standard for the design and replacement of vehicles is the NFPA 1901 and in Canada departments also use ULC S-515-12. It is recommended that these and other related NFPA standards relating to vehicle design, replacement and refurbishing be utilized.

6.2.3 Damage of Salt Brine

Over several years, municipalities are using salt brine on the roads in the winter to reduce the adhesion of snow and ice to road surfaces. This mixture is causing significant damage to fire apparatus and advancing the rusting of the vehicle's body. Once the frame rail of an apparatus begins corroding, it may in time split, creating very expensive repairs and in some instances making the vehicle un-road worthy. CFES should wash the underbody of every fire apparatus each spring and have the body

sprayed with an anti-rusting agent to slow the rusting process and reduce the repair costs associated with this issue

6.3 Apparatus Maintenance

CFES does not have its own in-house mechanical division to complete repairs and testing to its vehicles and equipment. This is handled in the following manner:

- Firefighting staff are expected to complete monthly inspections and testing of vehicles and equipment.
- A local truck dealer looks after normal maintenance and repairs to the chassis.
- If any mechanical repairs are required for the pump on a vehicle, it is contracted out to a third-party facility/mechanic that has an Emergency Vehicle Technician (EVT).
- Pump testing is completed by a 3rd party.

When planning for future fire stations, consideration should be given to adding facilities to house a fleet maintenance division for all the Township's vehicles. This could be in the form of building a station on a lot of property that is large enough to facilitate additional bays/ parts storage area and offices being added to the structure, or the inclusion of the maintenance bays at the time of the structure's build. This branch would be responsible for the testing and repairs of the fire department's ancillary equipment. Savings may be realized for the Township by not sending all its vehicles to a 3rd party to compete repairs.

The standardization of the fleet chassis will, in the long run, save on training time and funds on repairs as repairs may be expedited due to familiarity with each unit's features. Fortunately, the Township has a local business to rely upon for basic apparatus repairs.

6.4 Vehicle Technology

The CFES has endeavored to advance the technological perspective on the apparatus through the acquisition of tablets. All apparatus, including Chief's cars, have these units installed. These units are data-enabled and permit the responding crews to acquire the following information about the incident they are enroute to:

- Direct 2-way data communication from BFES
- CAD information accessibility
- Mapping
- Responding staffing levels via Sinirji app
- Pre-incident plans
- Hydrant locations

- Access to the internet for weather reports, weather radar, and HAZMAT information

Having the apparatus checklists, including inventories, would enable the firefighters to efficiently complete apparatus checks. Monthly station inspection forms could also be made available to be compliant with the *H&S Act.*

In the future the CFES should upgrade these units to a full Mobile Data Terminal function, which permits enhanced levels of communications directly to the BFES and many more features. This includes vehicle GPS so that apparatus may see the location of the responding apparatus.

Fire apparatus like personal vehicles rely heavily on computers to operate the vehicle. They are not only used to operate the chassis, but also the pump via the pump panel controls. With so many components requiring computer related components, the operators must be able to troubleshoot any issues that may arise that need further analysis by a certified EVT. Any error codes that are identified on control panels should be documented to be relayed to the repair centre.

The fire apparatus in Clearview currently has pre-emptive traffic emitters installed. The emitters transmit a signal to a traffic light that a fire apparatus is proceeding to that intersection, and it will turn the light green so the trucks may proceed through the intersection without being impeded by a red light. None of the traffic lights in Clearview have this technology.

Recommendation #29: CFES, the County of Simcoe Traffic Department and the Ministry of Transportation of Ontario, discuss having pre-emptive technology included in any upgrades to existing traffic control systems as well as new installations.

Rationale: *This will aid in timely response to emergencies, as fire apparatus will be free to pass through intersections without delay.*

6.5 Ancillary Equipment

Tracking the completion of annual testing should be an organization's priority to ensure the functionality of equipment for the front lines. This will allow the fire department to confirm that apparatus and equipment testing can be scheduled accordingly to minimize unavailability of apparatus.

An important tool in fighting fires that involve ordinary products of combustion is Class A foam. Class A foam will aid in extinguishing the fire quicker, thereby reducing the fire loss. Foam develops a covering layer over the product and assists in smothering the products burning. Currently the department uses Class A & B foam products and has a cache of approximately 40 to 50 pails of foam concentrate available. CFES is a point of contact to pick up supplies of foam for Springwater, Wasaga Beach, Collingwood, Dundalk, and Rosemont fire services.

When ordering the department's next pumper, consideration should be given to adding both Class A & B foam systems on the truck. Most fire services have, as a minimum, a 136 L (30 gallon) tank for Class A foam concentrate and a 91 L (20 gallon) tank for Class B foam concentrate.

6.5.1 Respiratory Protection Program

The Ontario Fire Service, Ministry of Labour, Section 21, Guidance Note 4.9 – Respiratory Protection Program states:

Generally, employers must protect workers from exposure to a hazardous biological or chemical agent without requiring them to wear and use a respirator. Where exposure to these hazards cannot be avoided or effectively controlled, employers must provide a respirator appropriate in the circumstances to protect the workers from exposure.

Employers who provide a respirator must comply with the respiratory protection requirements in Regulation 833, including, but not limited to:

- *establishing written measures and procedures regarding the selection, care and use of respirators*
- *providing training and instruction to workers in the care and use of the respirator before the worker first uses the respirator*
- *Employers must also ensure that respirators provided are maintained in good condition.*
- *Employers should appoint a respiratory protection program administrator.*

Respiratory Training

Workers must be trained on:

- *care and use of a respirator before using it for the first time*
- *limitations of the respirator*
- *inspection and maintenance of the respirator*
- *proper fitting of the respirator*
- *cleaning and disinfecting the respirator*

Respirator Fit

Tight-fitting respirators must be tested for fit by either a qualitative or quantitative fit test.
Prior to each use of a tight-fitting elastomeric respirator, a worker must conduct positive and negative pressure user seal checks.

A tight-fitting respirator must not be used by a worker with facial hair that comes between the sealing surface of the facepiece and the face or that interferes with the functioning of the respirator.

Respiratory Protection Program

In addition to the requirements in Regulation 833, a respiratory protection program should address the following:

- *program administration, documentation, and evaluation*
- *program administrator training*
- *training of persons administering fit testing*
- *proper use of Rapid Intervention/Universal Air Connections and other emergency procedures*
- *fit testing for all respirators every 2 years (quantitative fit testing for SCBA)*
- *air quality testing prior to filter change and following major service work, modifications, or extensive repairs*
- *under what conditions respiratory hazards arise, such as:*
- *an unknown atmosphere that is suspected of being hazardous*
- *a hazardous atmosphere, such as overhaul*
- *an atmosphere that may rapidly become hazardous, such as wind change*
- *working below ground level or inside a confined space (unless the safety of the atmosphere can be established by testing and continuous monitoring)*
- *potential exposure to biological hazards*
- *potential use of longer duration SCBA cylinders based on risk assessment of larger and/or complex structures*

The program should be developed in consultation with the joint health and safety committee or health and safety representative.

Applicable Regulations and Acts

Read:

- *Occupational Health and Safety Act*
- *clause 25(1)(b) for maintaining equipment and protective devices in good condition*
- *clause 25(2)(a) for providing information and instruction to a worker*
- *clause 25(2)(h) for taking every precaution reasonable in the circumstances to protect workers*
- *Regulation 833 – Control of Exposure to Biological or Chemical Agents for occupational exposure limits and respiratory protection requirements*
- *O. Reg. 490/09 – Designated Substances for respiratory protection requirements for designated substances*

CFES is compliant with the requirements for FIT testing under CSA Standard Z94.4 Selection, use and care of respirators, in that FIT testing for SCBA masks is completed bi-annually.

CFES though, does not complete FIT testing for N-95 masks. It would be in the best interest if this testing was also completed bi-annually, on the off-year that the SCBA FIT testing are completed. This is especially prudent with the ongoing COVID-19 pandemic; there are several models and sizes of masks available on the market. Ensuring a proper fit will best protect the firefighters.

6.6 Small Equipment Maintenance

Several years ago, the province instructed all municipalities to develop an asset inventory along with the implementation of an asset management program. All assets of the fire department should be identified within this program. Fire Administration has been in the process of establishing an asset management program using the "citywide" computer program that the Township uses for that purpose. The program needs to specifically include a master equipment life-cycle plan to ensure that equipment replacement is occurring where applicable. It is a common practice to tie this equipment to the parent apparatus. Unfortunately, the program in use is not comprehensive to meet the needs of CFES to properly identify all the department's assets.

CFES has a multitude of items that need to be included in the asset management program and each needs to be logged into the system, along with their repair history, associated costs, and approximate end of life span. The processes in place are inhibiting the input of this data in a timely manner. All parties involved should review the present processes and see how efficiency may be improved, specifically in meeting the needs of the fire service.

There is a program in place for small equipment testing and evaluation. The equipment such as ladders, breathing apparatus, small engines, ropes, and hoses are tested annually or based on manufacturers recommendations.

- NFPA 1932 Standard identifies the type and frequency of testing for ground ladders.
- NFPA 1983 outlines the testing process for life safety rope.
- NFPA 1914 outlines testing for aerial devices.
- The *Health and Safety Act* Section 21 guidance notes also make note that all equipment used by workers must be in good condition.

CFES should be commended for ensuring that these types of testing and maintenance are being carried out.

6.7 Water Supply & Hydrants

Adequate water supply is an integral component of the fire service's operations. Water supply during a large-scale fire is paramount, whether in an urban or rural setting.

For effective evaluation, the entire infrastructure is reviewed, including:

- water main size and standards
- whether the water reservoirs are above or below ground
- if hydrants are present
- whether standards on the type and model have been established
- whether there are additional residential developments in progress
- municipal ability to supply the water flows required, as additional industrial, mercantile, and residential developments have begun the processes of completion

Clearview is looking at several residential developments, the largest being in Stayner, which will require a significant upgrade to the water system infrastructure to service all the residences including a senior's complex.

All the fire hydrants need to be inspected and tested as required in Articles 6.6.5.2. through 6.6.5.7. of Ontario Regulation 213/07 of the *Municipal Act*, and NFPA 291, *Recommended Practises of Fire Flow Testing and Marking of Hydrants*. Any hydrants installed on private property should be done in compliance with NFPA 24, *Standard for the Installation of Private Fire Service Mains and Their Appurtenances*.

The failure of a hydrant to operate as required may present catastrophic results and expose the municipality to risk of litigation. For this reason, every hydrant should be serviced annually to ensure proper operation when required. During a tour of the township, it was noted that the fire hydrants are not coloured in accordance with NFPA 291.

Clearview should ensure that each hydrant is coloured-coded in compliance with NFPA 291 Standards, for fire flow. In some cases, there are long upright reflectors affixed to the 65 mm ports that indicate the location of the hydrant, which is helpful during the winter months. Some municipalities have gone the extra step and installed reflectors on the 65 mm ports that are colour-coded identifying the hydrant's fire flow. Having the reflector aids firefighters in locating hydrants at night.

NFPA 291, states hydrants should be identified in the following manner:

- Article 5.2.1.1: *All barrels are to be chrome yellow except in cases where another colour has already been adopted.*

- Article 5.2.1.2: *The tops and nozzle caps should be painted with the following capacity indicating colour scheme to provide simplicity and consistency with colours used in signal work for safety, danger, and immediate condition*:
    - *Class AA – Rated capacity of 1500 gpm (5,700 L/min) or greater is to be light blue*
    - *Class A – Rated capacity of 1,000 – 1,499 gpm (3,800 – 5,699 L/min) is to be green*
    - *Class B – Rated capacity of 500 – 999 gpm (1,900 – 3,799 L/min) is to be orange*
    - *Class C – Rated capacity of less than 500 gpm (1,900 L/min) is to be red*.

Recommendation #30: Clearview adopt the NFPA 291 colour code for identifying fire flow capacity of fire hydrants.

Rationale: *Adopting the NFPA 291 colour code will bring Clearview in compliance with the Ontario Fire Code.*

When a fire hydrant is out of service, repairs should be completed in an expedited manner, notifying the fire department of such breakages and the anticipated time to complete the required repairs.

Cisterns are large concrete tanks installed in the ground that usually contain up to 45,500 liters (10,000 gallons) of water. At Peace Natural Project on Concession 12, there are 10 cisterns in place for CFES to draw water from. Any cisterns that are built should be according to NFPA 22, *Standard for Water Tanks for Private Fire Protection.*

6.7.1 Couplings & Hose

Modern fire hydrants have three ports for attaching fire hose when required. The two ports on the side are 65 mm (2 ½") in diameter and the large steamer port on the front may vary in size from 100 mm to 150 mm (4" to 6"). Normally the large steamer port has threads on it, in which fire services attach large diameter water supply hose ranging in size from 100 mm to 150 mm. The water supply hoses do not have threads but Storz couplings or lug locks in which to attach the hoses together. To attach a hose with these coupling to a hydrant requires the fire service to use an adaptor.

Many municipalities like Clearview, are now ordering new or replacement fire hydrants with Storz couplings on the large steamer ports to eliminate the need for an adaptor. If an adaptor is not available, the firefighters are unable to attach the hose to the steamer port.

It should be policy of Clearview that any new hydrant installations are a specific brand and model which includes steamer ports that have the Storz connection on them.

The CFES currently uses 4" (100 mm) water supply lines on their apparatus. When a fire occurs, a constant flow of water supply is key to saving a structure. In many incidents the amount of water

supplied becomes an issue and may consequently result in additional fire loss. To aid in attaining adequate water supply could be as simple as increasing the size of the supply hoses used.

If CFES acquires an aerial device, they are usually outfitted with a high-capacity pump and as such require strong water supply to maximize their operation; going from a 4" (100 mm) supply line to a 5" (125 mm) supply line will make a difference. They could have the same sized 4" (100 mm) Storz couplings.

Water supply hoses with a diameter of 5" (125 mm) or greater have a very worthwhile purpose during relay pumping water along long farm laneways.

TABLE #11: Water Capacity and Weight Based on 30M (100') Length of Hose

Hose Size	Volume	Gallonage (Litres)	Weight
4" (100 mm)	15,080 In^3	54.36 Imp. Gal. (247.33 L)	544.76 lbs. (247.61 kg)
5" (125 mm)	23,562 In^3	84.93 Imp. Gal. (386.43 L)	851.19 lbs (386.90 kg)

6.7.2 Superior Tanker Shuttle Accreditation

Many fire services have attained their Superior Tanker Shuttle Accreditation. In doing so, FUS reduces insurance rates within that community, which represents a small savings to the residents. The Tanker Shuttle Accreditation demonstrates that the fire department can aggressively attack rural fires as the department can maintain a consistent large volume of water flow in areas without fire hydrants. Part of the process is to ensure tankers have adequate, nearby locations with which to refill using regular hydrants, dry hydrants, cisterns, streams, or the lake (preferably with a dry hydrant). The Township should continue to maintain and expand the water source infrastructure that may be needed to improve the access to water supplies in rural areas such as wet and dry hydrants.

The CFES has attained this accreditation and should strive towards maintaining this milestone, as a means of ensuring adequate water supply in rural areas. This may also assist with lowering insurance costs for some residents in the community.

CFES should reference NFPA 1231, *Standard on Water Supplies for Suburban and Rural Fire Fighting* to see what enhancements could be achieved in their operations.

SECTION 7

Emergency Management

SECTION 7: EMERGENCY MANAGEMENT

7.1 Emergency Management Program

As mandated by the *Emergency Management and Civil Protection Act* (EMCPA) all municipalities in Ontario must have an ERP and an emergency planning program. The *Act* also stipulates that municipalities are to conduct an annual training exercise. For every community in Ontario, there must also be an identified CEMC. Currently this duty falls to the Township's Fire Chief, with the Deputy Fire Chief as their alternate.

The Township has the required Emergency Management Program By-Law which was passed by Council in 2014. While this document remains in effect, it should be reviewed and updated, and once completed, presented to Council for their approval.

The latest version of the ERP was completed in 2017. Annual reviews and updates are required. This may require minor changes, not a complete document update; any changes are to be cataloged on the Record of Amendments page in which is at the front of the document. The following should be recorded:

- Identify which version is being updated of the current document
- The date changes were completed
- A brief outline of the subjects, changes, and the sections involved
- Name of individual completing the updates
- Whether the revised document requires Council approval; could be recorded within an additional column

After a review of the current ERP, consideration should be given to the inclusion of emergency plans of outside agencies being included in the appendices. These agencies may include conservation authorities, major industry, airports, and EMS.

With so many acts of domestic terrorism taking place each year through out the world, including Canada, a municipality must plan for such an event's actuality within their own community. The ERP should have a section dedicated to domestic terrorism. The section should include an integrated response program comparable to NFPA 3000, Standard for an Active Shooter/Hostile Event Response (ASHER) Program. Partnerships could be achieved with outside agencies such the OPP and EMS to develop and deliver a presentation to the public and include local businesses as sponsors to assist in offsetting any expenses.

Simcoe County has several online documents available that address a variety of emergency situations that the public may access. It speaks to being prepared in advance, having supplies readily available to

take in an emergency, and supplies required to be self sufficient for up to 72 hours. The Township's website has a link to both the Township's and County's Emergency Preparedness Portal webpage on emergency planning. The information on the Township's webpage could be expanded to include additional links to related websites such as Environment Canada's Watches and Warnings page.

One of the greatest challenges in emergency planning is the notification system that alerts of a pending or active emergency in the community. Communication is essential for any large-scale incident and a mass notification system sends messages via personal cellphones to communicate to the public during an emergency. There are several alerting apps available using text messaging or an actual app that is installed in a smart device. In Canada, the Alert Ready notification may be used for notifying the public of emergencies. Environment Canada uses some of these apps as do police services.

Many communities will also use the mass notification system to communicate local issues like a water main break to advise residents in the affected area. Clearview should explore the feasibility of an emergency warning system to alert citizens of an imminent or possible catastrophic event.

Some communities in Ontario have reached out to third parties to develop an app that will meet the needs and circumstances for their communities. Some communities are now giving serious thought to installing storm sirens, such as those found throughout the United States, as another means of notification of a pending emergency. This can be particularly helpful when individuals are without a cellphone. Several municipalities in Ontario are either in the process of, or already have installed storm sirens.

There have been several tornado events each year in Ontario and Clearview has itself experienced a tornado that resulted in damage. It would be unreasonable to install storm sirens throughout the Township, but focus should be on the more populated areas such as Creemore, New Lowell, Nottawa, Singhampton, and Stayner. It would be feasible to enter discussions with the County of Simcoe to review opportunities of installing storm sirens throughout the County to aid in reducing costs.

Within the ERP, Clearview can call upon their neighbouring municipalities to ask for assistance (aside from fire services) in the form of heavy equipment, personnel, etc. This would be reciprocal if they too needed assistance at some point.

During a review of the ERP, the following was noted:

- Within the index it refers to the OFMEM as "Ontario Fire Marshal and Emergency Management" when it should be "Office of the…" not "Ontario…"
- Throughout the document Clearview is referred to as a city not a Township.
- There is no mention of the roles and responsibilities of the CSPS or the OPP within the Plan.

- The roles and responsibilities of each member of the Emergency Management Program Committee within the Emergency Community Control Group (CCG) should be included.
- The roles and responsibilities of each Department Head should also be included.
- The document could include level of training (i.e., Basic Emergency Management (BEM) and IMS).

Recommendation #31: Clearview review partnership opportunities in the delivery of an ASHER program to the community.

Rationale: Domestic terrorism is a concern for Canadians as it could strike any community at any time. Being proactive in teaching the public what to do, may save lives if such an event occurs.

Recommendation #32: The Township of Clearview update their ERP to ensure it is current and identifies the responsibilities of those involved once the ERP is activated.

Rationale: This would meet Provincial Legislation requirements.

Recommendation #33: The Township of Clearview review opportunities of installing storm sirens in the built-up areas of the municipality. This should include opportunities of a joint installation with the County of Simcoe, or applying for funding in the form of grants, if made available by upper levels of Government.

Rationale: Global warming is affecting the weather patterns and Southern Ontario sees several tornadoes every summer. This is another means of keeping the public informed of a pending weather event.

Recommendation #34: The Township of Clearview review the feasibility of acquiring an emergency notification system, or at least gain access to messaging on the Alert Ready app.

Rationale: Acquiring an emergency notification system for the public will ensure citizens receive important information about road conditions, closures, flooding, etc.

7.2 Incident Management System (IMS) & Emergency Operation Centres (EOC)

Interagency, multi-jurisdictional, multi-government and *multi-disciplinary* are terms used when operating in a large-scale emergency environment. On May 1, 2016, a wildfire seven kilometers outside of Fort McMurray became the worst wildfire incident in Canadian history with losses and

economic impacts to the community close to $10 billion.[17] The IMS was implemented during this serious event in Canadian history and was a valuable tool during the decision-making processes taking place. Agencies understood their roles, while making sound judgment during the establishment of a plan for the fire's control and mitigation.

During some emergencies there is a likelihood of the IMS being expanded into a Unified Command due to the complexity and location of the incident. The Unified Command "is a management structure that brings together the Incident Commanders of all major agencies and organizations involved in the incident to coordinate an effective response what at the same time carrying out their own jurisdictional or functional responsibilities."[18]

The Emergency Operations Center (EOC) for the Township of Clearview is where municipal management will operate during the emergency. The Primary EOC is located within the township with the secondary EOC located in a neighbouring municipality. Clearview has entered a unique working relationship with a neighbouring municipality in sharing their EOCs as required. Some municipalities have gone as far as to establish a tertiary location further away from the primary and secondary sites.

Both the primary and secondary EOCs have automatic standby generators. Even though the EOC may not be placed in operation very often, they should be maintained in a state of readiness including updates to the IT system. An issue with both EOCs is security. There needs to be a means of securing areas of the building, so it is not accessible by the public; this may include the use of a private security company.

During a wildfire, severe weather, or earthquake, there is a high likelihood of the implementation of a Unified Command structure. Additional agencies to consider for the EOC include:

- OFMEM
- EMS
- OPP
- Conservation Authority
- Social services
- Red Cross and/or Salvation Army

The EOC is critical for the providing coordination, resource management, communications, and critical assessments of the event with the Incident Commander.

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[17] "Forged by fire: Fort McMurray 5 years after the disaster," Jamie Malbeuf, CBC News, May 3, 2021, https://newsinteractives.cbc.ca/longform/fort-mcmurray-five-years-on-from-disaster
[18] Deal, et al, (2010), "Beyond Initial Response," ICS, p.I-33.

The strength of the IMS is ensuring that the safety of responders and other personnel are a priority and an effective use of resources or elimination of the duplication of services is achieved. Individuals that are expected to be part of the EOC should have training in IMS, including designated alternate personnel.

There are four different types of Incident Management levels. Emergency Management Ontario (EMO) identifies the following:

- **IMS 100**: The awareness level training that introduces the participant to IMS topics and concepts.
- **IMS 200:** The awareness level training that is designed to help people function within the IMS. This level of training provides a greater depth regarding the functional areas and positions in the IMS.
- **IMS 300**: The level that is directed for supervisory functions and provides exposure to setting objectives, unified command, planning, demobilization, and termination of command. This level is focused on developing skills through practical exercises.
- **IMS 400**: The level that is directed for supervisory functions and is orientated to developing skills for complex incidents and the coordination of multiple incidents.

There is no minimum training identified for the EOC, however the IMS is identified in the Township of Clearview's ERP. Most incidents are routinely dealt with without activating the EOC. However, there is always the option to activate/ staff the EOC when an event is expected to expand in complexity and duration requiring an efficient coordination among departments or responding agencies.

It has been identified during the review of EOC that most members of the CCG have not completed the BEM course nor completed any training on the IMS.

Recommendation #35: All members of the Clearview CCG complete the Basic Emergency Management course.

Rationale: This will improve the understanding of each member's role during an emergency and ensure capabilities of functioning within the Incident Management System structure.

Recommendation #36: Due to the importance of staff understanding their roles and responsibilities in the EOC, it is recommended that a policy be implemented that identifies IMS 200 as the minimum standard for staff required to be in the EOC with IMS 300 being the goal for all department heads. It is further recommended that the IMS be enhanced within the Township's ERP.

Rationale: This policy will provide efficiencies in performing duties in the EOC. It will assist in the decision-making processes regarding what should be considered, both during and after the event is concluded.

7.3 Emergency Planning, Training, & Exercises

Emergency planning and IMS are skills that need to be used regularly. Several training options will be identified to assist the Township of Clearview to plan and exercise IMS and their emergency plan activation.

EOC Activation: Planning for a practice activation of the primary and secondary EOC keeps staff orientated to their roles in the EOC. All EOC staff should participate in these practice sessions.

There are two main types of exercise used to test emergency plans:[19]

- **Discussion Based Exercise -** In discussion-based exercises, the primary intent is to have dialogue regarding the emergency plan, procedures, by-laws, and any policies that could impact an emergency. The discussion sessions are low key, low pressure, and a great tool for familiarization. The secondary intent of discussion-based exercises is to build confidence through familiarization amongst team players in the application of the plan. These discussion-based exercises are great tools to facilitate the learning process for the staff designated as alternates expected to fill a role in the EOC. Discussion-based training is a great way to orientate new staff or existing staff that have not had a real opportunity to familiarize themselves with the emergency plan or organizational plans, by-laws, procedures, and policies.
    - **Tabletop Exercise** -These exercises are low cost with minimal stress, but preparation can require some time to create a scenario that is relevant to the municipality. A tabletop exercise is generally led by one facilitator depending upon the complexity of the scenario. Tabletop exercises are a great way to identify gaps in plans, policies, and procedures in the post-exercise discussions. To complete the exercise, an After-Action Report is completed to identify any shortcomings or deficiencies that need to be addressed.
- **Operations-Based** - The primary intent is to deploy personnel and equipment in a drill, functional exercise, or a full-scale exercise. The disadvantage of an operations-based exercise is that they require a significant amount of time to plan and prepare for as resources will be required from multiple agencies. Operations-based exercises generally reveal gaps and weaknesses in training, inter-agency communications, resource allocation and operational procedures. Operations-based exercises include:
    - **Drills -**These are exercises that are intended to evaluate a specific operation. For

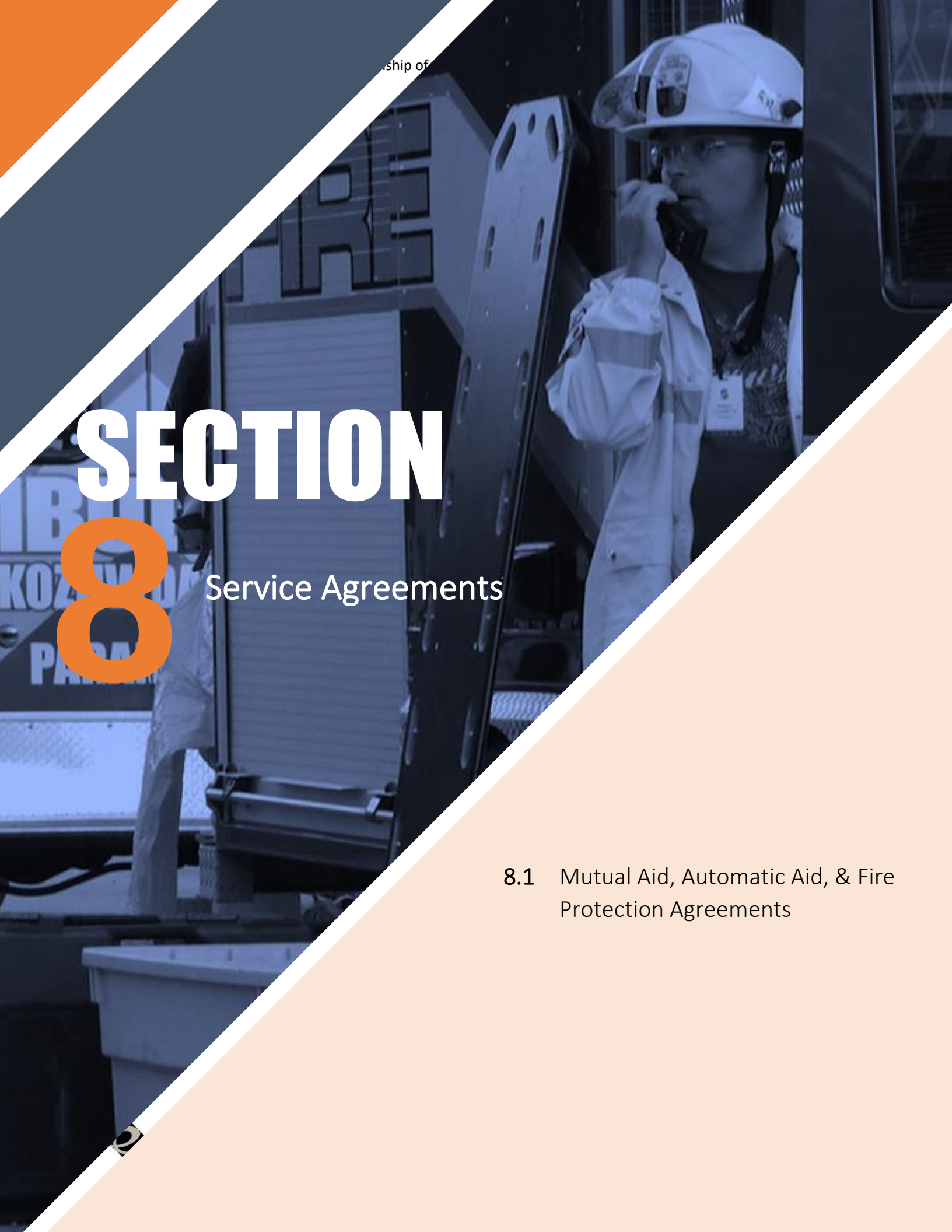
[19] Culley, Darryl, *Creating Chaos & Mayhem: The Ultimate Guide to Disaster Exercise Planning.* (Ontario: Emergency Management & Training Inc., 2014), 31-35.

example, the CFES and CSPS may conduct a drill of carbon monoxide leak in a long-term care home.

- **Functional exercises -** These exercises can be complex with a high degree of realism and are used to test plans, procedures and policies in the training scenario which is at a single site. These exercises are used by agencies to test their capabilities of performing multiple functions in a scenario that is located at a single site.
- **Full-scale exercises** – This is a complex exercise that tests multiple agencies in a single scenario at multiple sites. These exercises are in real time, highly realistic and usually stressful for agency personnel participating in the exercise. A full-scale exercise can take from 6-10 months to prepare for and require a significant investment in resources and funds. Several facilitators are required to ensure safety and compliance to the storyline of the exercise. A full-scale exercise is developed with clear objectives to test multiple agencies. Upon completion of the exercise, a hot wash is conducted which is a formal discussion of the involved agencies performance during the exercise. An After-Action Report and a formal Improvement Plan are prepared and distributed that identify actions required to address and improve performance.

Recommendation #37: CEMC to prepare a three-year training schedule for Clearview CCG members and support staff, identifying EOC activation orientation and annual tabletop and operations-based exercises for the CFES, Township, and external agencies.

Rationale: *Having a plan of future training will give the CEMC the ability to identify any shortcomings so that future training exercises can be planned, while also considering the level of experience in emergency management. Planning will provide ample time to organize the exercise and present a budget plan for Council's approval.*



SECTION 8

Service Agreements

SECTION 8: SERVICE AGREEMENTS

8.1 Mutual Aid, Automatic Aid, & Fire Protection Agreements

Mutual aid, automatic aid, and fire protection agreements are programs used to:

- Support a community's fire department at times when local resources are exhausted.
- Offer quicker response coverage to areas that may be closer to a bordering a fire department's response area than that of the host department.
- Create an automatic response by bordering fire departments to properties that are closer to their fire stations than that of the host fire department.

8.1.1. Mutual & Automatic Aid

The Mutual Aid Plan is established to aid in the mitigation of any emergency that may arise and identify and provide the resources available to respond to the situation. It should be reviewed and updated annually with the updated version forwarded to the OFMEM.

CFES is a member of the Mutual and Automatic Aid program for the County of Simcoe which includes all the fire services of Simcoe County, the separated cities of Barrie and Orillia, two indigenous communities, and Canadian Forces Base Borden by way of By-Law 07-49. The current by-law that permits CFES to participate in the Mutual Aid Plan is outdated and should be reviewed and updated accordingly.

Mutual aid is meant as a reciprocal agreement whereby one department aids another at a major incident. Mutual aid should not be used to supplement short comings in fire protection. The Council of the responding fire service may serve notice that the municipality of which they are responding to has identified an exposure risk and should take appropriate action to make corrections.

Automatic Aid and Response Agreements are an appropriate way to identify areas of the home department's response capabilities and fill in any gaps that exist. This may include responses to remote areas of a municipality or the provision of a technical rescue team. CFES currently has several agreements in place. These agreements, while active, are outdated and need to be reviewed and updated with the corresponding municipality and their fire service.

These agreements are with the following fire services:

- Township of Adjala-Tosorontio
- Township of Mulmer-Melancthon
- Municipality of Grey Highlands
- Town of The Blue Mountains

- Town of Collingwood
- Town of Wasaga Beach
- City of Barrie (Provision of Technical Rescue)

Consideration should be given to the following when formalizing an automatic aid agreement:

- The agreement should identify the resources that each fire department can provide.
- The agreement should identify and authorize the fire department to leave their jurisdiction for automatic aid purposes.
- The identification of the Incident Command procedures by all parties.
- Fire departments must be suitably equipped to meet the functions they are expected to perform at an emergency.
- All fire departments have the legal obligation to serve and protect their own community prior to engaging in mutual aid activities and this must be clearly stated in the plan.
- Liability coverage and indemnification provisions

Recommendation #38: The Township of Clearview and the CFES to review and update all automatic aid and response agreements currently in place.

Rationale: *Upon completion of the review, agreements will be current to reflect any changes that may have occurred that may affect each department's level of response. As building stock increase, responses may require an increase in the resources that respond.*

SECTION 9

Finance, Budgeting, Fees and Charges, & Cost Recovery Mechanisms

SECTION 9: FINANCE, BUDGETING, FEES AND CHARGES, & COST RECOVERY MECHANISMS

The costs associated with operating a fire department can make up for a large part of the municipality's overall budget. Presently, the fire department's budget accounts for 14% of the Township's annual operating budget. It is EM&T's experience that a fire department's operating budget can easily range from 15 to 40% of a municipality's budget, depending on the municipality, the model of the fire service structure (i.e., volunteer, combination, or full-time only), and level of services provided.

During municipal budget deliberations, departments are essentially competing against each other for scarce budget resources. The Fire Chief must educate the Township's administration and elected officials explaining why these costs are necessary for the fire department to provide the service levels identified in the E&R, and for the safety of staff and citizens in the community.

CFES has a set of annual operating and capital budget/forecasts that fluctuate based on the staffing, programs, and equipment that have been identified for replacement. During the review of the operating and capital budget process, it was found that CFES is organized in both areas.

9.1 Operating Budgets

During the review of the operating budget, it was noted that all key account operating sections are identified and tracked, such as:

Operating Budget Line Items:

- Staffing
- Training
- Fire Prevention and Inspection
- Vehicle and equipment maintenance
- Station maintenance and utilities
- Uniforms and bunker gear
- Office supplies
- Other materials and supplies
- Debt funding

9.2 Capital Forecasts

The Township's current Capital Expenditure Program identified a capital funding plan for fire vehicles, equipment, and property as required by the Department. Each year the Council approves an updated spending plan for the Township's capital budget. The capital budget generally consists of large investments into the community and the township is to be commended for their efforts.

During the budget process, the Fire Chief prepares a capital budget report and forwards it to the Capital Budget Committee for review. The request is evaluated on whether it is a growth-related request based upon the ability to provide a level of service or continued maintenance/ upgrades to large ticket items such as vehicles, bunker gear, or SCBA replacement. The recommended projects are then consolidated into a report for Council to deliberate and approve or deny.

It appears there is a standard year replacement cycle for the fire trucks that is based on the FUS recommendations for front line vehicles. This replacement cycle falls in line with the industry standards of 20 years or more (for smaller communities), depending on the vehicle's function.

Capital Budget Line Items:

- Vehicle replacement
- Equipment replacement (for large cost items that are not covered in the operating budget)

Along with the replacement schedule, FUS recommends that there should be at least one spare fire truck for up to every eight related units. For example:

- One pumper truck for every eight (pumpers),
- One spare aerial truck for every eight (aerials),
- One spare tanker truck for every eight (tankers), etc.

A reserve unit should always be available, should one of the primary units go out of service. This still applies if the department has less than eight vehicles. Alternate solutions include having agreements with neighbouring fire departments to provide apparatus on loan or through an automatic aid response when vehicles are out of service.

It is important to ensure that adequate annual contributions for small equipment, along with apparatus repairs, and contributions for future infrastructure (fire stations) are identified. If any

shortfalls are determined, the Fire Chief should establish what effect this will have on operations and bring forward any recommendations (for funding adjustments), if necessary.

There is not a formal a business plan in place that incorporates all the department's general vehicle and equipment needs to support future goals and expectations. Although vehicle and major equipment is currently in good condition, a replacement life-cycling plan should be developed that considers not only fleet, but also major equipment. These are significant costs and should be planned and anticipated over the next ten years as part of the MFP considerations.

EM&T generally recommends, as a standard practice, that there be reserve funding for all major equipment life-cycling such as SCBA, heavy hydraulics, bunker gear, and any specialty rescue equipment such as automatic external defibrillators, water-rescue, rope rescue, etc., if applicable. Major equipment such as these have finite life cycles depending on emergency incident use and training applications. Vehicles and equipment that are over ten years old generally start to require significantly increased maintenance and repair cost to keep them serviceable. This cost would negatively offset the reserve funding required for a managed life-cycle replacement program. CFES is doing this for things such as facilities, vehicles, bunker gear, and "general equipment"; however, it is recommended that all major equipment has planned and formally developed life-cycling replacement programs with timelines and costs.

9.3 Review of Fees & Charges and Cost Recovery Mechanisms

The Township of Clearview has enacted a Development Charges By-Law (19-36). The current by-law became effective on June 24th, 2019. Fees are charged to those that wish to develop land and these funds are dedicated to specific services the municipality provides in a reserve account for that service. The said funds must be used for capital projects that are necessitated by the development of lands that have increased the need of enhanced service provision in that area of the municipality.

Within Schedule B of the by-law, the outline of the amount of funds that will be dedicated towards fire protection is dependent on the type of development taking place (i.e., detached residential vs. apartments vs. non-residential).

The fire department is looking at significant expenditures in the coming years and the amount to be directed for fire protection should be reviewed regularly and amended to lessen the impact on the tax base.

The following Table #12 provided as an example, lists the amount of funds dedicated to fire protection from other communities of the region. This is taken out of the total development charge that is aligned with each type of occupancy.

TABLE #12: Comparators of Funding for Fire Protection from Development Charges

Municipality	**Residential**				
	Total Amount of Development Charges, a Municipality Invoices for Single/ Semi Detached	Single/ Semi Detached – amount to Fire Protection Services	Apartments 2-bedroom – amount to Fire Protection Services	Apartments 1-bedroom – amount to Fire Protection Services	Other Multiples – amount to Fire Protection Services
Clearview	**$33,976* (Stayner)**	**$1,062**	**$611**	**$427**	**$848**
South Huron	$2,801	$207	$143	$787	$403
Innisifil	$36,752	$1,554	$1,120	$856	$1,347
The Blue Mountains	$28,042	$416	$416	$332	$332
Lucan Biddulph	$6,400	$310	$179	$131	$251
Meaford	$11,440	$636	--	--	$427
Middlesex Centre	$10,567	$1,614	$1,033	$652	$1,060
Thames Centre	$11,693	$1,122	$600	$510	$828
West Grey	$6,176	$549	$370	$247	$352
Springwater	$14,559	$2,480	$1,405	$981	$1,912

**The Township of Clearview's total charge varies between locations in the Township. Total charges range from $8,755 to $33,976, but the amount dedicated for each service varies as well dependent on location.*

9.3.1 Fees By-Law

A means of fire services in generating revenue to offset the operating costs of the fire department is through a Fees By-Law for services provided. Clearview is permitted to charge for services provided, as outlined in the *Municipal Act* of Ontario (2001), Part XII.

The Township has a by-law in place for the charging of fees for several municipal services provided. Fee By-Law 17-110 Schedule G allows for the invoicing of services provided by the CFES. It was found that the list of fees for service currently being charged should be reviewed and updated. This will capture more invoicing opportunities enabling offset costs for the services provided by the fire department. The opportunity of generating revenue could be expanded with the review and update of the current fee schedule to meet standards. It is recommended that the Fee By-Law be reviewed and updated.

Another form of revenue generation is the invoicing of all fire responses to the property owners' insurance companies through a third-party company specializing in these services. Many fire services in the province have implemented this to aid in offsetting the cost of operating the fire service. Within insurance policies for both vehicles and structures, there are provisions for the payment of services provided by fire departments.

The following are some suggested services that fire services may charge for:

1. COMMERCIAL PERMITS AND INSPECTION FEES

- Single occupancy less than 20,000 ft^2
- Single occupancy greater than 20,000 ft^2
- Multi-tenant Building. Fee covers the first three units. A fee of ½ of the current hourly rate will be charged for each additional unit.
- Fireworks & Pyrotechnics Display Inspections

2. RESIDENTIAL PERMITS AND INSPECTION FEES

- Multi-tenant (up to and including 12 units)
- Multi-tenant (over 12 units)
- Two-unit House Registration Ontario Fire Code Inspection - The fee covers the cost of the initial inspection and follow-up inspection to a maximum of two (2) working hours. If subsequent inspections are required, the current hourly rate will be billed to the applicant.

3. OTHER INSPECTIONS

- Liquor Licence
- Day Care, Foster Care and Group Homes
- Business Licence Inspection Fee (hourly rate)
- Fire Inspection Fee (hourly rate)
- Shows, Exhibitions, Special Events (hourly rate)
- 3rd or subsequent review of Fire Safety Plans

4. FIRE APPARATUS STANDBY

- Shows, Exhibitions, Demonstrations - Current overtime rates per hour is noted at current MTO rates. Full cost recovery should be considered for 1 Captain & 3 Fire Fighters, minimum of 3 hours per apparatus.
- Respond to all vehicle fires: (vehicles as described in the OFM Standard Fire Report). Current MTO hourly rate per hour.
- Stand-by After Fire - Current rate per hour is $225 per apparatus per hour. Full cost recovery should be considered for 1 Captain & 3 Fire Fighters, minimum of 3 hours per apparatus.

5. TECHNICAL RESCUE

- Technical Rescue (such as ice/water rescue, confined space, high angle, trench, elevator,
- Hazmat and vehicle extrication). Full Cost Recovery.
- Motor Vehicle Collisions (all) Cost equally divided by all parties involved. No charges to permanent residents and businesses. Current MTO hourly rate per hour.

6. MISCELLANEOUS FEES

- Administrative charge for invoices
- File Search
- Fire Report (Copy)
- Training other Fire Departments and Agencies - by the hour per trainer plus course materials and expenses, i.e., fire extinguisher training
- Environmental - Service Calls: Permanent residents and businesses. If fire department required on scene greater than two (2) hours, or failure of companies for persons to obtain service locates. Current MTO rates per hour per apparatus.

- Environmental - Service Calls: Non-Residents - fee charged from time fire department receives the call. Current MTO hourly rate per hour
- Burn permit – annually, for trailer parks
- Outdoor Solid Fuel Burning Appliances Annual Permit
- Review and approval of Risk and Safety Management Plans submitted by propane operators related to the storage and handling of propane (hourly rate)

7. ADDITIONAL EXPENSES

- If it is necessary to retain a private contractor, rent special equipment not normally carried on a fire apparatus to determine origin and cause, suppress or extinguish a fire, preserve property, prevent fire spread, make safe or otherwise eliminate an emergency (Actual Costs).

There have been incidences whereby the insurance company has paid the policy owner rather than sending the funds directly to the municipality. The policy holder in turn failed to forward the funds to the municipality which meant all parties became involved in a court case. The judge in the case ruled in favour of the insurance company and the policy holder due to the municipality failing to have a by-law in place that ordered the policy holder to pay the fire department.

The municipality developed a by-law that requires either the insurance company or policy holder (property owner) to be responsible for ensuring payment of fire department response fees. If not paid, the municipality in turn would add the amount to the property owner's tax bill.

A review of the fees and charges show to be in line with other jurisdictions in dollar value. With ever increasing financial constraints imposed on municipal governments, capturing fees and charges can provide additional income to offset the increased expenses. Such recoverable expenses could be the fixing of damaged vehicles due to inadequate road maintenance and the cost recovery for expenses incurred in the extinguishment of fire.

Recommendation #39: Ensure all major equipment has a planned and formally developed life-cycling replacement program with timelines and costs.

Rationale: *Capital budgets would fall in line with the replacement schedules of the high-cost assets. This will also present a picture to council of what the capital budget requests could look like in the future.*

Recommendation #40: Review and update the Fees By-Law.

Rationale: *There are services provided that CFES does not currently invoice for. Updating the by-law will provide additional means of revenue generation to offset operational costs of CFES.*

SECTION 10

Review of Previous FMP

SECTION 10: REVIEW OF PREVIOUS MFP

10.1 Previous Fire Master Plan

Fire Protection Survey Services (FPSS) was retained to undertake an MFP study for the CFES in 2014. This study encompassed the operations, staffing, fire stations, fire apparatus, training, communications, fire prevention and public education, and maintenance programs. During the study, FPSS interviewed the career and part-time personnel, visited all five fire stations, looked at all apparatus, and visited the contract maintenance facilities. In addition, FPSS stated that all roads were driven virtually in the Township to view risks and conditions.

FPSS reviewed and conducted the MFP along the service levels as stated in the E&R #14-22. CFES was found to be able to provide:

- Fire Suppression for structural, vehicle and wild land type fires
- Response to Motor Vehicle Accidents, including the delivery of first aid, and vehicle extrication
- Water Rescue
- Ice Water Rescue

In addition, in conjunction with outside agencies, it can provide:

- Structural Collapse Rescue
- Rope Rescue
- Trench Rescue
- Hazardous Material Response
- Confined Space Rescue
- Natural Gas Leaks
- Carbon Monoxide Incidents
- Response to High Angle and Low Angle Rescues

The Fire Department was found to be well managed and generally very well organized as per the 2014 MFP report.

The 2022 MFP review process included a review of the previous MFP to assess what recommendations were stated and to what degree all recommendations had been subsequently addressed in the years following the FPSS 2014 MFP Report. Reviewing and assessing previous reports and recommendation documentation is a standard operating

procedure for EM&T and is considered due diligence in producing an updated and wholesome MFP going forward.

10.2 Gap Analysis Review

The 2014 MFP document indicated the recommendations as found in the following chart. EM&T has confirmed with the current CFES Fire Chief the status of the recommendations as well as intentions regarding the potential carry-forward of any outstanding recommendations to the 2022 MFP report.

2014 MFP Recommendations and Current Status

Category	2014 Recommendation	Completed Y/N	Carry-over to new FMP Y/N
Ops & Training	Strongly recommend that "Level A" medical response be maintained	Y	Y
	Recommend Training Officer be appointed rank of Captain and that this position be made a career position ASAP	Y	N
	Recommend a program should be set-up to provide additional dry hydrants in rural areas	No, the rural water delivery is far better than dry hydrants	N
Prevention	Strongly recommend that a regular inspection program be set-up	Y	N
	Recommend that FPO position no longer includes any by-law enforcement activities	Y	N
Facilities	Recommend that fire stations are not designated as emergency evacuation centers	Y	N
	Recommend bunker gear dryers in stations	No, Stn 4 washes and dries all gear for dept	N
	Recommend back-up generators in all fire stations	Yes, some auto and some manual	N
	Stn 1 - catch basin requires repair	Y	N

Category	2014 Recommendation	Completed Y/N	Carry-over to new FMP Y/N
	Stn 3 – replace station	In progress	N
	Stn 4 – Strongly recommend a classroom be constructed at rear of bay area	Y	N
	Stn 4 – Recommend replacing vehicle exhaust system	N	Y
	Stn 5 – Recommend removing lounge furniture	N	N
	Stn 6 – Strongly recommend that a classroom be constructed at the right rear of the bay area	In Progress	N
Apparatus & Equipment	Recommend that the pumpers carry 35 ft extension ladders vs 25 ft	No, not feasible as they do not fit in most internal ladder storage	N
	Strongly recommend that a complete inventory of apparatus, equipment, and fire stations be established and kept for use by the Fire Department to keep track for internal & insurance purposes	Yes, each station has an inventory that can be requested, they do change often so a master list is not practical	N

10.3 Next Steps

It should be noted that the E&R #14-22 remains in effect and has not been updated in the past 7 years. EM&T referenced the E&R By-law in Section 1 of the 2022 MFP report and recommends that this By-Law be reviewed, updated, and presented to Council for approval.

Assessment of the current status of CFES along with discussions to review findings with the current Fire Chief have solidified the following carry-over items originally from the 2014 MFP to be included in the 2022 MFP report.

Category	2014 Recommendation	2022 MFP Section Reference
Ops & Training	Strongly recommend that “Level A” medical response be maintained	5.2
Facilities	Stn 4 – Recommend replacing vehicle exhaust system	6.1.3

SECTION 11

Summary

SECTION 11: SUMMARY

11.1 Conclusion

CFES staff are truly dedicated to the community they serve. Council, CAO, and the Fire Chief are sincerely committed to ensuring the safety of the community and the firefighters. Based on the present equipment and fire station locations, CFES is endeavoring to offer the most efficient and effective service possible. Staffing continues to be an issue due to the high rate of firefighter turnover. Having identified the need to provide proper fire protection and related staffing requirements, efforts are currently underway to address the staffing shortage. The reasons for a significant number of firefighters leaving the department should be reviewed and addressed.

All costs and associated timelines to the following recommendations are approximations that can be implemented through prioritization between the Fire Chief, CAO, and Council.

Most MFPs are 10-year documents with a review to be conducted at the five-year point. Due to some of the specific recommendations made in this document, it is advisable that the Fire Chief view this as a "living document", conducting more frequent reviews of the recommendations, and bringing forward updates to Council, as required.

11.2 Recommendations & Estimated Costs

The following chart provides further overview of the recommendations found throughout this report along with any estimated costs that may be incurred.

Rec#	Recommendation	Estimated Costs	Suggested Timeline
1	The present E&R By-law be reviewed, updated to reflect more recent changes from the Ontario Fire Service Curriculum to the NFPA Standards, and presented to Council for approval. The update should also include an outline of services being delivered by the fire department.	Staff time	Short-term (1 – 3 years) and ongoing
2	CFES to undertake a review and update the following by-laws: • County of Simcoe Mutual Aid Plan and Program (# 07-49) • Open Air Burn (# 14-06)	Staff time	Immediate

Rec#	Recommendation	Estimated Costs	Suggested Timeline
	• Fireworks (# 08-22)		
3	A third-party consultant be engaged to assess and provide a report that outlines communications, organizational culture change, and effective communications and dispute resolution issues, along with potential training solutions for all staff.	$10,000 - $20,000 depending on implementation requirements	Short-term (1 – 3 years)
4	The Township of Clearview and the CFES complete a CRA prior to the 2024 requirement of the OFMEM.	$20,000	Short-term (1 – 3 years)
5	The Township of Clearview develop a comprehensive CRRP that falls in line with the CRA upon its completion.	Staff time	Short-term (1 – 3 years)
6	CFES to work in conjunction with residential developers in promoting the advantages of installing residential fire sprinklers.	Staff time	Short-term (1 – 3 years) and ongoing
7	The CFES management team regularly access the FUS Municipal Fire Portal to communicate improvements and/or updates. This data could relate to new fire apparatus replacements, new fire stations, new construction, hydrants in new sectors, etc.	Staff time	Short-term (1 – 3 years)
8	CFES's SOPs be renamed as SOGs thereby allowing for the IC and Officers to make decisions based on their good judgement and the circumstances before them.	Staff time	Short-term (1 – 3 years)
9	An SOP Committee be re-established with representation of all divisions of the Department. It is further recommended that the Department's SOGs be reviewed annually and be updated to meet current industry standards.	Staff time	Short-term (1 – 3 years)
10	CFES to establish JH&S Committee specific to the needs of the fire service, in accordance with the *Occupational Health & Safety Act* of Ontario.	Staff time	Short-term (1 – 3 years)

Rec#	Recommendation	Estimated Costs	Suggested Timeline
11	CFES to utilize a senior officer from the current suppression ranks as a District or Platoon Chief on a trial basis.	Staff time	Short-term (1 – 3 years)
12	Clearview enact a by-law for the operation of second units, outlining that the units must be compliant with provincial legislation and be registered or licenced with the Township.	Staff time	Short-term (1 – 3 years)
13	CFES hire a third party under a temporary contract to complete the fire inspections and public education until such time as a decision on the full-time position is made.	$35,000	Immediate
14	CFES review the inclusion of the public, as non-responding members of CFES, in the delivery of public education.	$4,000 to $8,000	Short-term (1 – 3 years)
15	Fire Prevention Division monitor inspection and public education requirements and consideration be given to the addition of more FPOs to assist in ensuring all needs of the Division are met.	Staff time (for the evaluation) Cost of a full-time FPO would be $80,000 to $130,000 including benefits.	Short-term (1 – 3 years)
16	FPO to complete the NFPA 1033, Standard for Fire Investigation course and that the FPO and any officers (who have completed the NFPA 1033 course) seek certification.	Staff time	Short-term (1 – 3 years)
17	CFES to develop an annual training plan, resourced with funding, implement, and continually assess to ensure that the volunteer firefighters are completing the required training.	Staff time	Short-term (1 – 3 years)
18	CFES should further investigate the value of purchasing a mobile live fire training unit, as opposed to utilizing the OFMEM mobile trailer, when/if available. The findings of the review are to	Staff time. If purchased, could range	Short-term (1 – 3 years)

Rec#	Recommendation	Estimated Costs	Suggested Timeline
	be presented to Council for approval of preferred option.	from $300,000 to $600,000.	
19	Clearview dispatch agreement with Barrie Fire & Emergency Service to include references to NFPA 1225 and 1061.	Staff time	Short-term (1 – 3 years)
20	CFES invest in decontamination equipment and develop the appropriate policies and SOPs in performing decontamination of firefighters at the scene of a fire.	Staff time	Short-term (1 – 3 years)
21	CFES develop a formal health and wellness program that includes all facets of health and wellness. This should include physical fitness, mental health, and cancer prevention.	Staff time	Short-term (1 – 3 years)
22	CFES develop and implement a Respiratory Protection Program in accordance with applicable Acts and Regulations.	$10,000	Short-term (1 – 3 years)
23	CFES to investigate the costs and benefits of increasing full-time fire prevention/suppression personnel as the community grows and volunteerism declines.	$125,000 to $150,000	Immediate (0 - 1 year)
24	The Township of Clearview to prioritize the replacement of Station #3, in New Lowell, in 2022.	$3,000,000	Short-term (1 – 3 years)
25	Replaced and upgrade the exhaust extraction system at Station 4, Creemore.	$50,000	Short-term (1 – 3 years)
26	Install safety features on all the apparatus overhead doors as noted.	$20,000 – 25,000	Short-term (1 – 3 years)
27	CFES to acquire an aerial device with a height of at least 22 m (75’) and that the acquisition of a used device be explored.	$500,000 - $1,500,000	Short-term (1 – 3 years)
28	CFES to repurpose the Chief’s vehicle when they are replaced by assigning them to either the Training or Fire Prevention Officer, or to a station as a support vehicle.	Staff time	Short-term (1 – 3 years)

Rec#	Recommendation	Estimated Costs	Suggested Timeline
29	CFES, the County of Simcoe Traffic Department and the Ministry of Transportation of Ontario, discuss having pre-emptive technology included in any upgrades to existing traffic control systems as well as new installations.	Staff time only unless the County requires some funding from the Township	Short-term (1 – 3 years)
30	Clearview adopt the NFPA 291 colour code for identifying fire flow capacity of fire hydrants.	Staff time plus cost of paint and reflectors	Short-term (1 – 3 years)
31	Clearview review partnership opportunities in the delivery of an ASHER program to the community.	Staff time	Short-term (1 – 3 years)
32	The Township of Clearview update their ERP to ensure it is current and identifies the responsibilities of those involved once the ERP is activated.	Staff time	Short-term (1 – 3 years)
33	The Township of Clearview review opportunities of installing storm sirens in the built-up areas of the municipality. This should include opportunities of a joint installation with the County of Simcoe, or applying for funding in the form of grants, if made available by upper levels of Government.	Staff time (to review and propose budget)	Short-term (1 – 3 years)
34	The Township of Clearview review the feasibility of acquiring an emergency notification system, or at least gain access to messaging on the Alert Ready app	Dependent on features and purpose, could cost a few thousand to use an existing mass notification app, or the develop of a proprietary app could cost tens	Short-term (1 – 3 years)

Rec#	Recommendation	Estimated Costs	Suggested Timeline
		of thousands of dollars.	
35	All members of the Clearview CCG complete the Basic Emergency Management course.	Staff time	Short-term (1 – 3 years)
36	Due to the importance of staff understanding their roles and responsibilities in the EOC, it is recommended that a policy be implemented that identifies IMS 200 as the minimum standard for staff required to be in the EOC with IMS 300 being the goal for all department heads. It is further recommended that the IMS be enhanced within the Township's ERP.	Staff time	Short-term (1 – 3 years)
37	CEMC to prepare a three-year training schedule for Clearview CCG members and support staff, identifying EOC activation orientation and annual tabletop and operations-based exercises for the CFES, Township, and external agencies.	Staff time	Short-term (1 – 3 years)
38	The Township of Clearview and the CFES to review and update all automatic aid and response agreements currently in place.	Staff time	Short-term (1 – 3 years)
39	Ensure all major equipment has a planned and formally developed life-cycling replacement program with timelines and costs.	Staff time	Short-term (1 – 3 years) and ongoing
40	Review and update the Fees By-Law.	Staff time	Short-term (1 – 3 years) and ongoing

APPENDICES

Appendix A: Community Survey Example

Appendix B: Fire-Step Staffing Process

Appendix C: PSFG 04-84-13

Appendix D: Call Types & Response Data for 2018

SECTION 12: APPENDICES

Appendix A: Community Survey Example

The Clearview Fire and Emergency Services (CFES) dedicates their efforts to providing protection from fire, life threatening emergencies, and dangerous conditions for residents and visitors.

The fire department provides service to community in a “composite” fire department model. This means that CFES, with its five fire stations, are staffed by a mix of full-time staff and volunteer firefighters, amounting to approximately 100 personnel. CFES responds to a variety of calls that may include general assistance/information inquiries, to responding to emergency incidents such as motor vehicle collisions, fires, water rescue, or medical emergencies.

In our ongoing efforts to ensure that we are meeting the needs of our growing community, we are creating a fire services plan to guide operational improvements and ensure the optimization of services to the community.

To accomplish this, we have engaged Emergency Management & Training Inc. (EM&T), to assist us with this initiative. EM&T is a consulting firm that has worked with many fire departments in developing their fire master plans, station assessments and fire service reviews. To supplement the fire services plan, EM&T has created this community survey to collect input from our valued residents. Please take the time to complete the survey; we need your help! Your confidential responses will assist to ensure focused action that continues to meet the diverse needs of the community.

The survey will be available until November 26, 2021.

* 1. What is your general impression of CFES in relation to levels of professionalism, community safety, education, and fire prevention awareness programs?

* 2. Have you been in contact with CFES staff in relation to fire safety programs, and, if so, how did you find this interaction?

* 3. How important are the following statements to you:

	Extremely important	Very important	Important	Not very important	Not important at all
How quickly the Fire Department gets to me if I have an emergency					
Whether CFES will visit my home to give me safety advice and/or fire smoke alarms					
How much the fire services costs me as a taxpayer					
How well the Fire Department works with other agencies to provide wider community safety services					
How often the Fire Department consults me about their services					
How often the Fire Department provides community training opportunities (e.g., fire extinguisher training; school safety programs; older and wiser program; smoke alarms; fire escape planning)					
How visible the Fire Department is at local community events					
Contacting assistance services after an emergency, as required					
Timeliness to any request for services or assistance from the Fire Department					
Purchasing and maintaining new and applicable equipment to ensure the					

department has reliable up to date equipment to safely deliver its services					
Continued and relevant training to meet the needs of the community					

4. Based on your knowledge/understanding of the Fire Department, what do you think are the top three issues facing our fire service today?

_____

_____

_____

5. These are the core services delivered by CFES. Which services are most important to you? Please rank in order of priority from 1 (most important) to 7 (least important). Please use each number only once and use all seven numbers.

	Extremely important	Very important	Important	Not very important	Not important at all
Fire fighting					
Rescue (i.e., motor vehicle accidents)					
Fire/Arson investigations					
Code enforcement / fire investigations					
Community outreach / Public education					
Hazardous materials (i.e., gas or chemical spills) and technical rescue response (i.e., water rescues)					
Public assistance requests / Non-emergency responses					

Emergency management and planning					

6. Over the next 10 years, if you could implement up to three things to improve how the current services are provided by CFES, what would those things be?

_____

_____

_____

7. Have you directly received service from the CFES?

☐ Yes

☐ No (If no, skip to question 9)

8. Could you share some details of your experience and any recommendations for service improvements?

_____

_____

_____

_____

_____

_____

Thank you for completing this survey. Your feedback is greatly appreciated and will help to shape future service delivery efforts.

If you have any questions about this survey, please e-mail Lyle Quan, Consultant for Emergency Management & Training Inc. at lquan@emergencymgt.com.

Appendix B: Five-Step Staffing Process

Step 1: Scope of Service, Duties, and Desired Outputs

Identify the services and duties that are performed within the scope of the organization. Outputs should be specific, measurable, reproducible, and time limited. Among the elements can be the following:

- Administration
- Data collection, analysis
- Delivery
- Authority/responsibility
- Roles and responsibilities
- Local variables
- Budgetary considerations
- Impact of risk assessment

Step 2: Time Demand

Using the worksheets in Table C.2.2(a)-(d), quantify the time necessary to develop, deliver, and evaluate the various services and duties identified in Step 1, taking into account the following:

- Local nuances
- Resources that affect personnel needs

Plan Review - Refer to Plan Review Services Table A.7.9.2 of the standard to determine Time Demand.

Step 3: Required Personnel Hours

Based on Step 2 and historical performance data, convert the demand for services to annual personnel hours required for each program *[see Table C.2.3(a) through Table C.2.3(e)]*. Add any necessary and identifiable time not already included in the total performance data, including the following:

- Development/preparation
- Service
- Evaluation
- Commute
- Prioritization

Step 4: Personnel Availability and Adjustment Factor

Average personnel availability should be calculated, taking into account the following:

- Holiday
- Jury duty
- Military leave
- Annual leave/vacation
- Training
- Sick leave
- Fatigue/delays/other

Example: Average personnel availability is calculated for holiday, annual, and sick leave per personnel member (see Table C.2.4).

Step 5: Calculate Total Personnel Required

Branch of the unassigned personnel hours by the adjustment factor will determine the amount of personnel (persons/year) required. Any fractional values can be rounded up or down to the next integer value. Rounding up provides potential reserve capacity; rounding down means potential overtime or assignment of additional services conducted by personnel. (Personnel can include personnel from other agencies within the entity, community, private companies, or volunteer organizations).

Correct calculations based on the following:

(1) Budgetary validation

(2) Rounding up/down

(3) Determining reserve capacity

(4) Impact of non-personnel resources (materials, equipment, vehicles) on personnel

More information on this staffing equation can be found within the National Fire Protection Association 1730 standard. The Fire Prevention should assess the previous five steps and evaluate their present level of activity and the future goals of the Branches.

Appendix C: PSFG 04-84-13 Recruitment & Retention of Volunteer Firefighters

Volunteer Fire Service Personnel Recruitment and Retention

Public Fire Safety Guidelines	Subject Coding **PFSG 04-84-13**
Section **Fire Administration**	Date **October 2006**
Subject **Volunteer Fire Service Personnel Recruitment and Retention**	Page

Scope and Application:

This guideline provides municipal officials and Fire Chiefs of volunteers and composite fire services with a general overview of principles to consider in the recruitment and retention of volunteers.

There are many factors that contribute to the success of a volunteer recruitment and retention program. These include implementing organized marketing, recruitment, selection, hiring, training and retention plans.

Establishing and following a formal recruitment and retention program offers fire services the opportunity to increase the likelihood of finding, and keeping, the right people, doing the right tasks, at the right time.

Definition of Volunteer:

According to the *Fire Protection and Prevention Act* 1997, a Volunteer Firefighter is defined as "a Firefighter who provides fire protection services either voluntarily or for a nominal consideration, honorarium, training or activity allowance. ("pompier volontaire") 1997, c. 4, s. 1 (1); 2001, c. 25, s. 475 (1)."

The majority of fire departments in Ontario (450 out of 478) utilize the services of Volunteer fire service personnel. Recognized for their commitment and generosity, saving residents in Ontario more than an estimated one billion dollars annually, these professionals strive to provide skilled, competent and caring service.

Fire services that rely on volunteers to comprise, or enhance, their staffing capability continue to face the challenge of recruiting and retaining a sufficient number of capable and experienced personnel. This impacts on the effective, efficient, safe and timely delivery of fire protection services.

Recruitment and Retention Program:

The Benefits

A coordinated, organized program demonstrates:

- how seriously the leadership takes the services provided and the individuals who provide that service,
- sound risk management principles,
- proactive vs. reactive leadership within the department, and
- leadership's commitment to recognize volunteers, families and employers who support volunteerism.

It identifies:

- shortfalls and availability of volunteers in the community and,
- the number, type and quality of volunteers required to meet current or future needs.

It allows planning for:

- recruitment and selection,
- retention and succession, and
- training and development of volunteers.

Responsibility for Recruitment

Recruiting and retaining volunteers does take effort. Creating a committee within the municipality and assigning specific tasks can create opportunities for others besides the leadership to contribute to the growth of the fire service and allows for a more concentrated effort.

Annual Recruitment and Retention Plan

An annual recruitment and retention plan is a cyclic, ongoing process that will assist the fire service in planning and focusing its efforts. It should be a logical consideration of the time of the year, changing commitments throughout the seasons, weather, and psychological impact of seasons, milestones in the department, annual events and other trends. This will prevent the department from coming up short in membership by not having good candidates to replace those leaving.

Policies and Guidelines

Fire service leaders benefit from having the necessary policies and procedures to ensure a safe, lawful, organized, empowering, non-discriminatory environment for their volunteers. No matter how

large or small a department, policies and operating guidelines are essential management tools that set the standard for conduct and provide guidance for action. It is suggested that existing municipal policies, if available, be referenced.

Evaluation

Evaluation of the recruitment and retention program is necessary to identify strengths and areas to improve. It is an ongoing process that is built into all the components of the program.

Components in the Recruitment and Retention Cycle: **Pre-Recruitment**

Prior to recruiting, it would be beneficial to conduct a needs assessment to determine the role and number of volunteers required. Completing a Community Profile will determine community members who may best fit those roles. Answering these questions prior to recruiting enables the fire services to target specific individuals for specific roles and may increase the chance of success.

Recruitment

To promote diversity and involve volunteers with different skill sets, knowledge and perspectives, more than one recruitment method is necessary. Regardless of the method and knowing the department is seeking the best possible candidates, effective marketing and communication strategies are necessary to draw the interest of potential volunteers.

Selection and Hiring

Once received and acknowledged, all applicants require screening to determine those who will move on to the next step in the hiring process.

The Fire Service takes great pride in service to communities. A screening process is essential in order demonstrate that the volunteers serve in the community's best interest. The leadership should decide which screening methods and tools are appropriate for their department and should ensure that they reflect human rights and privacy legislation and existing municipal policies.

Upon selection, a written agreement between the volunteer and the fire department will ensure that expectations and responsibilities for each side are clearly identified and agreed to.

Orientation and Probation

Fire Departments and their volunteers will benefit from having an organized system to orient, train and advance recruits. One of the most successful and safe approaches for developing volunteers and

establishing a commitment is to initially offer specific tasks that allow them to become involved in a limited way, followed by opportunities to grow into a role with more responsibilities.

Ongoing Recruitment Efforts

Successful recruitment efforts should be ongoing throughout the year to ensure that there is a waiting list of interested individuals to draw from.

Ongoing Retention Efforts

Recruiting and training new volunteers is just the beginning. The long-term challenge is to create an environment in which individuals continue to be motivated, interested, challenged, supported and satisfied with the work they've accomplished. Factors that contribute to this environment include leadership practices, operating guidelines, recognition initiatives, support efforts, teamwork and fellowship.

Exit Processes

When an individual leaves the fire department, it is a good opportunity to solicit input to determine the department's strengths and opportunities for improvement. Exit processes should reflect understanding that, whether leaving on a positive or negative note, the volunteer and the fire department deserve fair and respectful treatment.

Resource Book:

The Application of Recruitment and Retention Principles:

The Volunteer Recruitment and Retention Resource Book that supports this guideline, was developed by the Ontario Fire Marshal's Office, in collaboration with representatives from the Ontario Fire Service.

This resource describes effective practices and strategies for recruitment and retention of Volunteer Fire Service personnel. It also provides a compilation of tools and templates that can be used to support the best practice or strategy. These may be photocopied or edited to meet the needs of the individual Fire Service.

A CD-ROM and printed copy of this resource has been made available to all Fire Services that maintain a volunteer complement. It can also be accessed and downloaded from the Ontario Fire Marshal's public access website http://www.mcscs.jus.gov.on.ca/.

Codes, Standards & Best Practices:

Codes, standards and best practices resources are available to assist in establishing local policy. All are available at http://www.mcscs.jus.gov.on.ca/.

Volunteer Resource Management

The following resources and links describe effective practices and strategies for Volunteer Resource Management. The principles and topics can be applied to the fire service.

The Canadian Code for Volunteer Involvement http://www.Volunteer.ca

HR Council for the Voluntary and Non-profit Sector http://www.hrvs-rhsbc.ca

Knowledge Development Centre, Canada Volunteerism Initiative http://www.kdc-cdc.ca

Please feel free to copy and distribute this document. We ask that the document not be altered in any way, that the Office of the Fire Marshal be credited and that the documents be used for non-commercial purposes only.

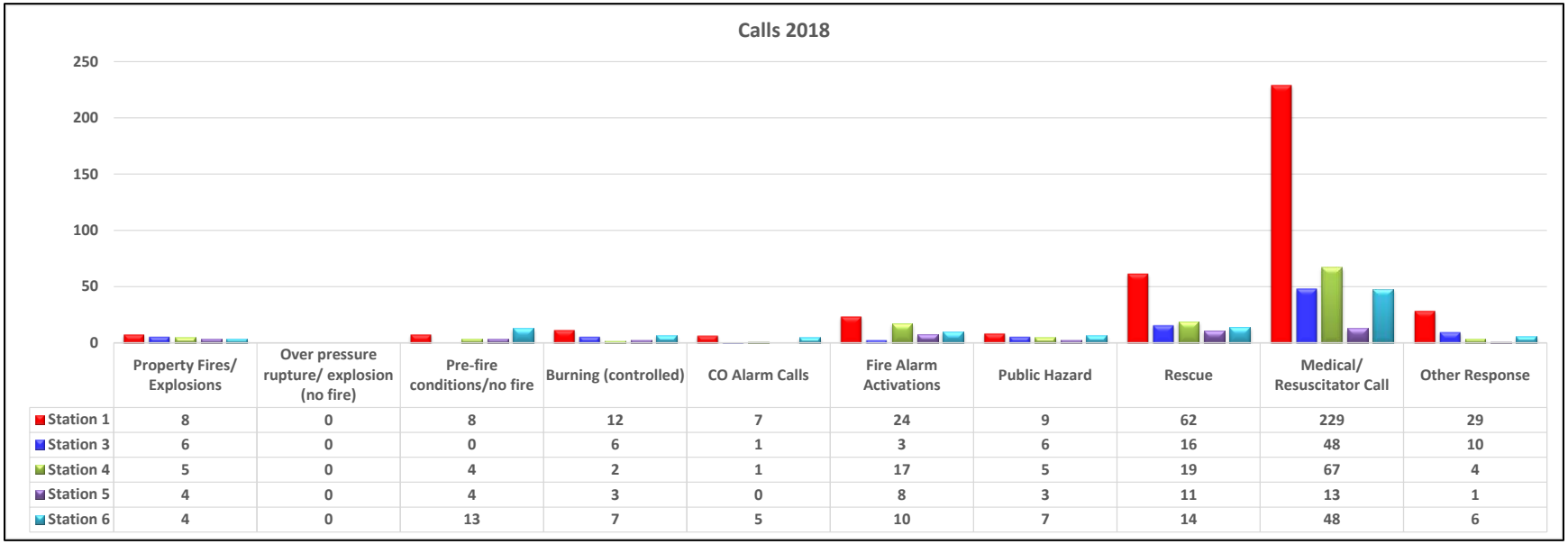
Additional References:

See also:

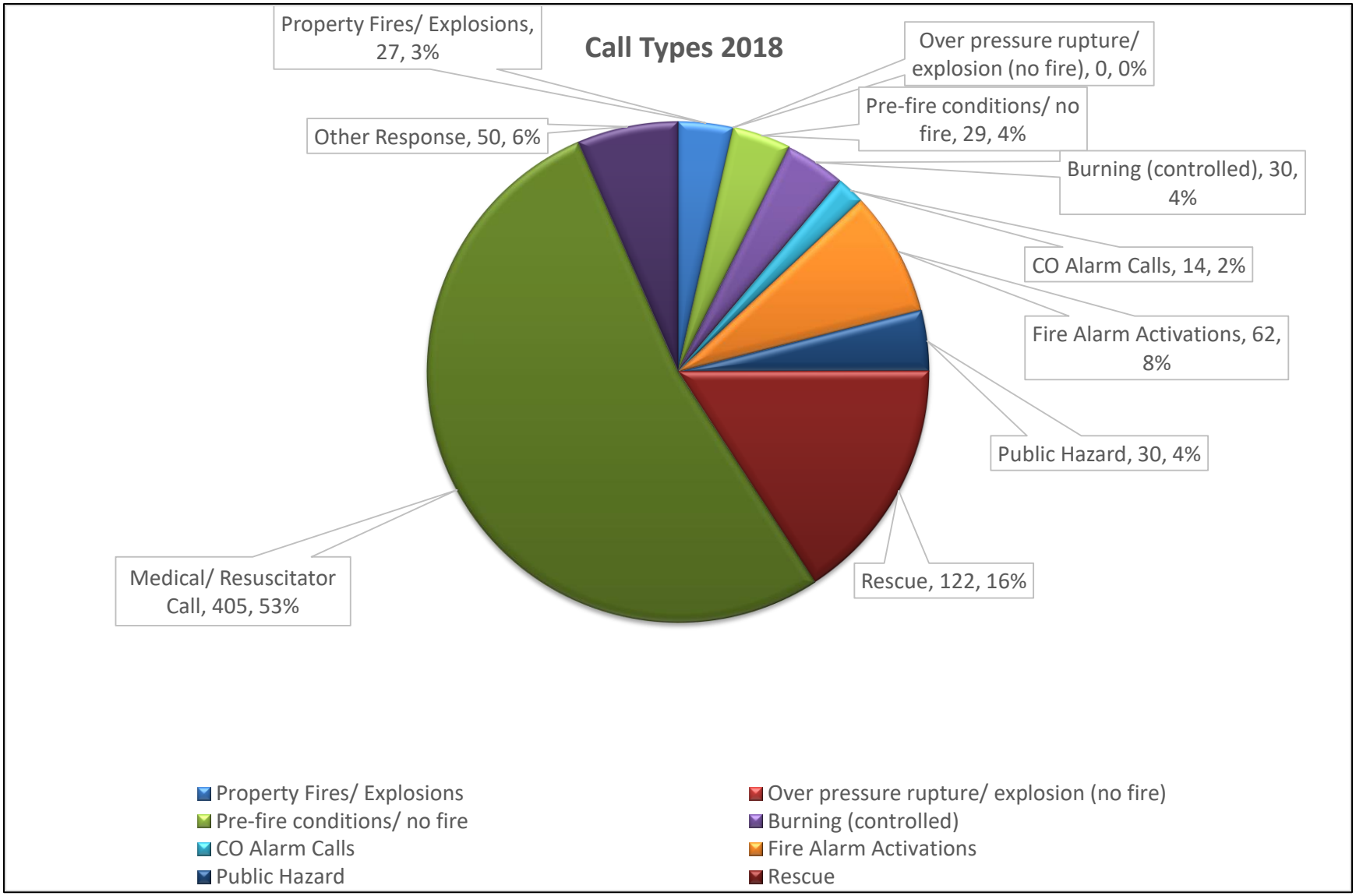
Office of the Fire Marshal's Public Fire Safety Guidelines

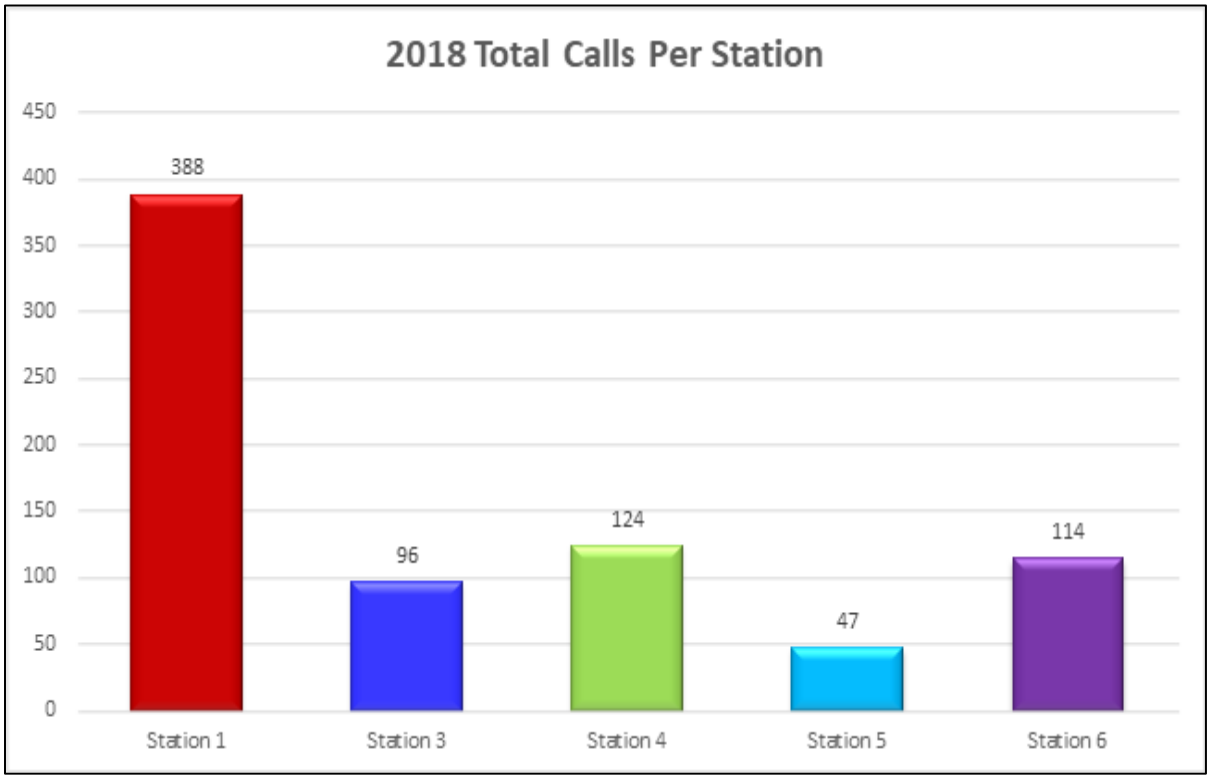
The following guidelines can be referenced when conducting a needs assessment to determine the role, quantity and characteristics of Volunteers required by the fire service.
04-08A-03 Optimizing Rural Emergency Response
04-12-13 Core Services (Response and Support) and Associated Guidelines
04-40A-03 Simplified Risk Assessment

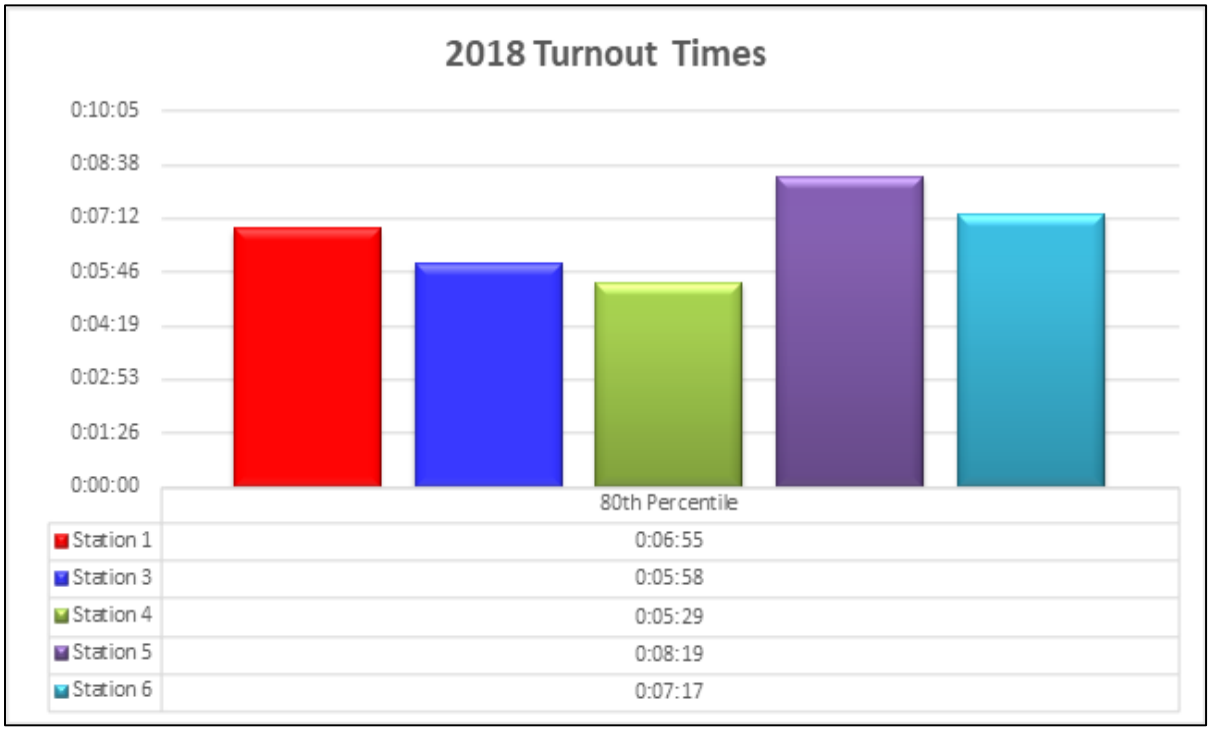
Appendix D: Call Types & Response Data for 2018

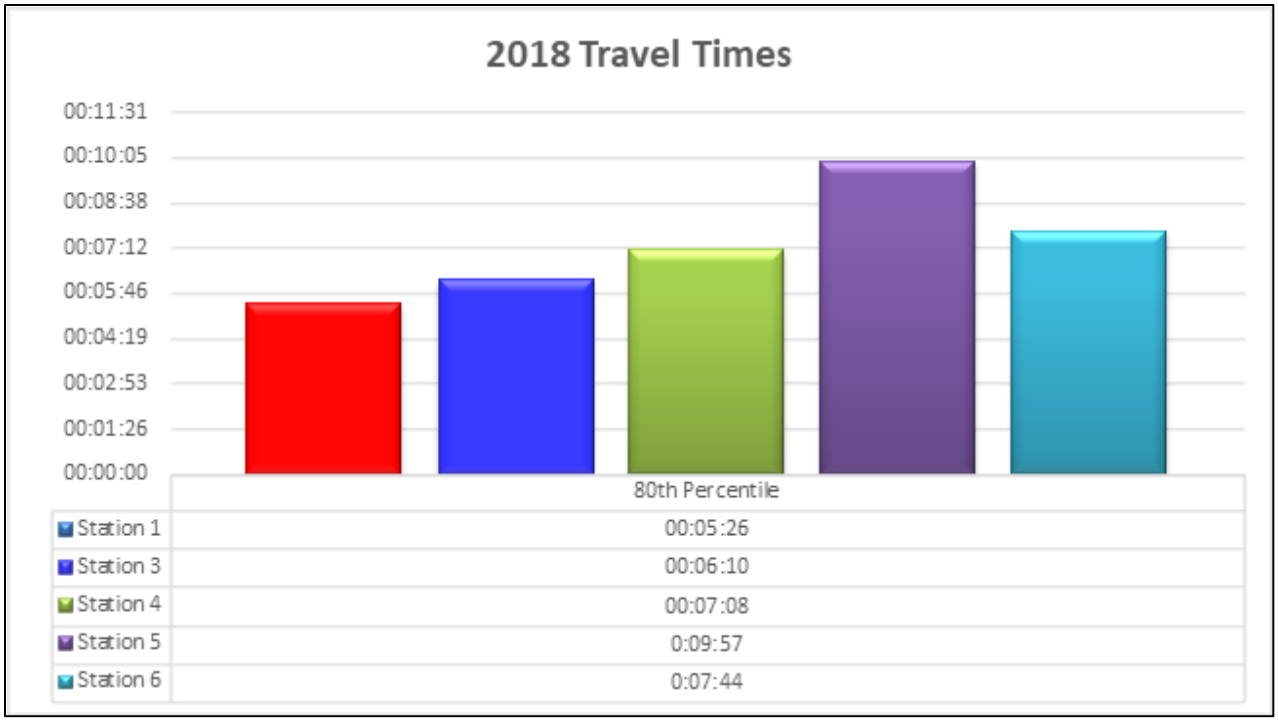


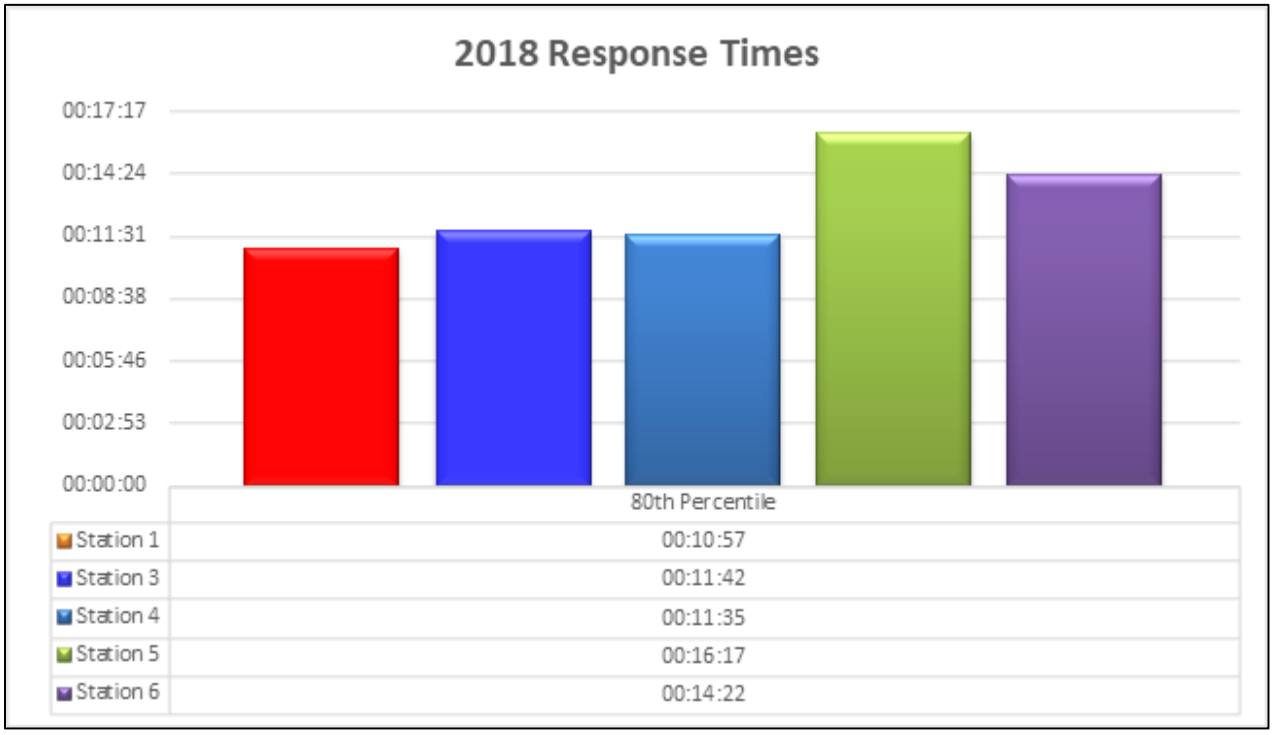
	Property Fires/ Explosions	Over pressure rupture/ explosion (no fire)	Pre-fire conditions/no fire	Burning (controlled)	CO Alarm Calls	Fire Alarm Activations	Public Hazard	Rescue	Medical/ Resuscitator Call	Other Response
Station 1	8	0	8	12	7	24	9	62	229	29
Station 3	6	0	0	6	1	3	6	16	48	10
Station 4	5	0	4	2	1	17	5	19	67	4
Station 5	4	0	4	3	0	8	3	11	13	1
Station 6	4	0	13	7	5	10	7	14	48	6


Call Types 2018
Property Fires/ Explosions, 27, 3%
Over pressure rupture/ explosion (no fire), 0, 0%
Pre-fire conditions/ no fire, 29, 4%
Other Response, 50, 6%
Burning (controlled), 30, 4%
CO Alarm Calls, 14, 2%
Fire Alarm Activations, 62, 8%
Public Hazard, 30, 4%
Medical/ Resuscitator Call, 405, 53%
Rescue, 122, 16%
Property Fires/ Explosions
Over pressure rupture/ explosion (no fire)
Pre-fire conditions/ no fire
Burning (controlled)
CO Alarm Calls
Fire Alarm Activations
Public Hazard
Rescue


2018 Total Calls Per Station
450
400
350
300
250
200
150
100
50
0
388
96
124
47
114
Station 1
Station 3
Station 4
Station 5
Station 6


2018 Turnout Times
0:10:05
0:08:38
0:07:12
0:05:46
0:04:19
0:02:53
0:01:26
0:00:00
80th Percentile
Station 1 0:06:55
Station 3 0:05:58
Station 4 0:05:29
Station 5 0:08:19
Station 6 0:07:17


2018 Travel Times
00:11:31
00:10:05
00:08:38
00:07:12
00:05:46
00:04:19
00:02:53
00:01:26
00:00:00
80th Percentile
Station 1 00:05:26
Station 3 00:06:10
Station 4 00:07:08
Station 5 0:09:57
Station 6 0:07:44


2018 Response Times
00:17:17
00:14:24
00:11:31
00:08:38
00:05:46
00:02:53
00:00:00
80th Percentile
Station 1 00:10:57
Station 3 00:11:42
Station 4 00:11:35
Station 5 00:16:17
Station 6 00:14:22