DILLON CONSULTING

Municipality of Chatham-Kent

Fire Master Plan

Final Report

May 2024 – 20-3619

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Acronyms, Abbreviations, Definitions

AHJ	Authority Having Jurisdiction
ANSI	American National Standards Institute
AS&E.	Academic Standards and Evaluation
BCIN	Building Code Identification Number
CBRN	Chemical, Radiological, or Nuclear
CCG	Community Control Group
CFAI	Commission of Fire Accreditation International
CHiRP	Chatham-Kent Homes: informed, ready, protected
CKFR	Chatham-Kent Fire and Rescue
CKFRS	Chatham-Kent Fire and Rescue Services
CKPFFA	Chatham-Kent Professional Fire Fighters Association
CFAI	Commission on Fire Accreditation International
CFO	Chief Fire Official
CFSEM	Comprehensive Fire Safety Effectiveness Model
CK	Chatham-Kent
CKFR	Chatham-Kent and Chatham-Kent Fire and Rescue
CKPFFA	Chatham-Kent Professional Fire Fighters Association
CKPS	Chatham-Kent Police Services
CO	Carbon Monoxide
CPC	Commission on Professional Credentialing
CPSE	Centre for Public Safety Excellence
CRA	Community Risk Assessment
CRRP	Community Risk Reduction Plan
CRTC	Canadian Radio-television and Telecommunications Commission
CTM	Critical Task Matrix
DOC	Department Operations Centre
EOC	Emergency Operations Centre

EMC	Emergency Management Coordinator
ERRS	Emergency Response and Responder Safety
FI	Fire Inspector
FIRST	Fast Integration Risk Specific Teams
FMP	Fire Master Plan
FPO	Fire Prevention Officer
FPPA	Fire Protection and Prevention Act
FTE	Full Time Equivalent
FUS	Fire Underwriters Survey
GIS	Geographic Information Systems
HIRA	Hazard Identification and Risk Assessment
IFSAC	International Fire Safety Accreditation Congress
igpm	Imperial gallons per minute
IMS	Incident Management Systems
IP	Internet Protocol
L/Min	Litres per Minute
MCR	Municipal Comprehensive Review
MTO	Ontario Ministry of Transportation
MW	Megawatt
NFPA	National Fire Protection Association
NG-911	Next Gen 911
NIST	National Institute of Standards and Technology
OBC	Ontario Building Code
OFC	Ontario Fire Code
OFM	Office of the Fire Marshal
OFSS	Ontario Fire Service Standards
OG	Operating Guidelines
OHSA	Occupational Health and Safety Act
OFMEM	Office of the Fire Marshal and Emergency Management

OP	Official Plan
O. Reg.	Ontario Regulation
PE	Public Educator
PEOC	Provincial Emergency Operations Centre
PFSG	Public Fire Safety Guideline
PSAP	Public Safety Answering Points
PSHSA	Public Services Health and Safety Association
PTSD	Post-Traumatic Stress Disorder
RFP	Request for Proposal
RTC	Regional Training Centre
SCBA	Self-Contained Breathing Apparatus
SCCDSB	St. Clair Catholic District School Board
SMT	Senior Management Team
SOG	Standard Operating Guideline
SOP	Standard Operating Policy
STI	Shift Training Instructor
SWOC	Strengths, Weaknesses, Opportunities and Constraints
TG	Technical Guideline
TSP	telecommunications service providers
US	United States
WSIA	Workplace Safety and Insurance Act

Executive Summary

The Municipality of Chatham-Kent (Municipality or Chatham-Kent) is committed to strategic community planning. The current Chatham-Kent (CK)-Plan 2035 supports the Municipality's vision of being "A welcoming, healthy, prosperous community that is culturally rich and naturally innovative"[1]. The preparation of this Fire Master Plan (FMP) is identified within the Chatham-Kent Strategic Plan as one of the Municipality's "Strategic investments to diversify, rationalize assets and level of services"[2]. This includes delivering the FMP and developing an implementation plan.

The scope of the process to prepare this FMP has included the development of a companion Community Risk Assessment (CRA) as required by Ontario Regulation 378/18 – Community Risk Assessments (O. Reg. 378/18). This regulation requires that all municipalities prepare the mandatory CRA prior to July 1, 2024. O. Reg. 378/18 also requires municipalities to "use its community risk assessment to inform decisions about the provision of fire protection services"[3]. The analysis and recommendations presented within this FMP have been fully informed by the findings of the companion CRA.

In addition to the mandatory requirements of O. Reg. 378/18 municipalities are now being required to prepare for the implementation and compliance with Ontario Regulation 343/22 – Firefighter Certification. This new regulation requires all municipalities in Ontario to comply with the mandatory certification for fire protection services identified within this regulation. For Chatham-Kent this includes the mandatory training and certification of firefighters (including career and volunteer), fire inspectors, fire and life safety educators and staff responsible for communications (emergency call taking and dispatching) prior to July 1, 2026.

Collectively these two new regulations create both significant challenges and opportunities for Chatham-Kent and Chatham-Kent Fire and Rescue (CKFR). These include implementing strategies to re-evaluate/revise the historical model of delivering fire protection services to respond to the findings of the CRA and developing and

[1] https://www.chatham-kent.ca/ckplan2035/Pages/Vision.aspx

[2] Municipality of Chatham-Kent – Strategic Plan, Strategy Corp, Strategic Plan at a Glance, August 9, 2023

[3] https://www.ontario.ca/laws/regulation/180378

implementing strategies to achieve and sustain the new firefighter certification requirements.

The methodology presented within this FMP has been informed by current industry best practices including those identified by the Office of the Fire Marshal (OFM), National Fire Protection Association (NFPA) and the Commission on Fire Accreditation International (CFAI). For example, the Comprehensive Fire Safety Effectiveness Model (CFSEM) developed by the OFM recognizes there are steps that can be taken to reduce the risk of a fire, including the probability of a fire occurring and the consequence of that fire, through optimization of the 'three lines of defence' fire protection model.

This model prioritizes public fire safety education as the 'first line of defence' in mitigating and/or preventing a fire. The 'second line of defence' includes the use of fire safety standards and enforcement as strategies to proactively introduce more complex risk reduction and risk mitigation strategies to reduce the probability and consequences of a fire. The 'third line of defence' refers to the provision of an emergency response that includes fire suppression capabilities. In our view, the provision of fire suppression service is the "fail safe" in the event that the first two lines of defence are unable to prevent the fire.

The Fire Protection and Prevention Act, 1997 (FPPA) requires that a municipality "establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention; and provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances"[4] . To assist Council in their decision-making process with respect to the delivery of fire protection services this FMP recommends that Council adopt the following strategic priorities:

I. The Municipality of Chatham-Kent is committed to supporting the transition of the Chatham-Kent Fire and Rescue into a fully integrated, composite fire service operating model.
II. The Municipality of Chatham-Kent recognises the need to utilize new provincial legislation to provide the foundation for the Municipality to review and revise its

[4] Fire Protection and Prevention Act, 1997, Part II Responsibilities for Fire Protection Services, Municipal responsibilities, 2(1) (a) (b).

current fire protection organizational structure and operational capabilities to deliver the most effective and efficient level of fire protection services that prioritizes the safety of the public and firefighters resulting in the best value for the growing community.

III. The Municipality of Chatham-Kent is dedicated to prioritizing strategies that support the sustainability of a fully integrated, composite fire service operating model including recognition of the historical commitment of those who have dedicated their services to the community in the past.

IV. The Municipality of Chatham-Kent supports the identification and implementation of services and programs that optimize the first two lines of defence, including public education and fire prevention, and the utilization of fire safety standards and fire code enforcement.

Summary of Recommendations

1. That the Council of the Municipality of Chatham-Kent adopt the proposed 'Strategic Priorities' presented within the proposed Fire Master Plan to inform their decision-making process with respect to the delivery of fire protection services over the next ten-year community planning horizon.

2. That consideration be given to implementing a strategy to develop a clearly defined mission statement, vision statement and core values to support the proposed transition of the Chatham-Kent Fire and Rescue to a fully integrated, composite fire service operating model.
3. That consideration be given to updating the current Establishing and Regulating By-law No. 292-2004.
4. That consideration be given to developing and implementing an annual reporting process to Council and the community.
5. That consideration be given to developing a Community Risk Reduction Plan as presented within the proposed Fire Master Plan.
6. That consideration be given to developing a comprehensive Fire Prevention Policy for consideration and approval by Council, and then included within the proposed updated Establishing and Regulating By-law as an appendix.
7. That consideration be given to implementing the proposed fire prevention and community safety strategies identified within the proposed Fire Master Plan.

8. That the CKFR continue to enhance its current Firefighter Training Program to include an 'In-House Certification' process to provide the required NFPA Pro-Qual Certification of all career and volunteer firefighters as required by Ontario Regulation 343/22 – Firefighter Certification.
9. That consideration be given to implementing a strategy to provide access to live fire training on an annual basis for all career and volunteer firefighters.
10. That the CKFR review the findings of the Community Risk Assessment to determine the applicable technical rescue 'awareness training' that should be provided to all career and volunteer firefighters.
11. That the CKFR consider revisions to its current technical rescue training and response to comply with the mandatory requirements of O. Reg. 343/22 – Firefighter Certification, and the implementation of the proposed Technical Rescue Team.
12. That the Municipality of Chatham-Kent adopt the proposed fire suppression performance objectives presented within the NFPA 1720 Standard including:
    - **Urban Demand Zone (Chatham)** – 15 firefighters arriving on scene within a nine-minute turnout time plus travel time (to 90% of fire suppression incidents).
    - **Rural Demand Zone (Remainder of the Municipality)** – six firefighters arriving on scene within a 14-minute turnout time plus travel time (to 80% of fire suppression incidents).
13. That the CKFR continue to consult with the Municipality's planning department, monitor and update the list of planning projects as they unfold and as more detailed information becomes available regarding growth areas, population projections and built form.
14. That the CKFR consult with other municipal departments to identify and acquire a site for the re-location of Station 1 to the vicinity of Park Street between William Street South and Lacroix Street.
15. That the re-located Station 1 be designed and constructed to accommodate both career and volunteer firefighters and the associated fire suppression apparatus.
16. That priority be given to the renovation of Station 2 to accommodate both career and volunteer firefighters and the associated fire suppression apparatus.

17. That the CKFR consult with other municipal departments to develop a process to consider acquiring a site for the proposed third Fire Station located within the Urban Demand Zone (Chatham) area in the vicinity of Keil Drive South, south of the Thames River.
18. That the CKFR develop and implement a recruitment and retention strategy to sustain a minimum complement of 24 volunteer firefighters at all stations staffed with volunteer firefighters.
19. That the Municipality of Chatham-Kent consider the application of a 1.33 ratio per platoon when hiring future career firefighters.
20. That the Municipality of Chatham-Kent consider revising the title of volunteer firefighters to 'Volunteer Paid on Call Firefighters' to further enhance the municipalities volunteer firefighter recruitment program.
21. That the CKFR consider the proposed organizational structure and staff resource strategies in developing a comprehensive implementation plan for consideration and approval by Council.
22. That the CKFR continue to work with Fleet Services to develop and implement a 20-year major fire suppression apparatus standardization and fleet renewal strategy.
23. That the CKFR, in consultation with Fleet Services, conduct a further major fire suppression apparatus fleet rationalization process, including consideration of pumper rescues.
24. That the CKFR, in consultation with Fleet Services, consider the major fire suppression apparatus needs of the proposed third urban fire station as part of the proposed major fire suppression apparatus fleet rationalization process.
25. That the CKFR, in consultation with Fleet Services, considers the service-ready major fire suppression apparatus needs of the CKFR as part of the proposed major fire suppression apparatus fleet rationalization process.
26. That the CKFR, in consultation with Fleet Services, review the new NFPA 1910-Standard for the Inspection, Maintenance, Refurbishment, and Retirement of In-Service Emergency Vehicles and Marine Firefighting Vessels (2024 Edition) and consider developing a strategy to comply with its requirements including staff training and certification.

27. That the CKFR, in consultation with Fleet Services investigate options for the implementation of an enhanced apparatus and equipment maintenance and repair internal work order process.
28. That the CKFR, in consultation with Fleet Services, develop and implement an equipment standardization and life cycle replacement strategy.
29. That the Municipality of Chatham-Kent seek a legal interpretation to determine the Authority Having Jurisdiction in providing emergency call taking and fire dispatching of CKFR staff and apparatus, and the application of O. Reg. 343/2 – Firefighter Certification to Emergency Communicators.
30. That a formal agreement for the delivery of emergency call taking and fire dispatching services be developed by the CKFR and CKPS.
31. That CKFR conduct a review of dispatch needs, services and solutions provided by the existing provider and conduct an investigative review of potential service delivery options/alternatives.

1.0 Introduction

The Municipality of Chatham-Kent initiated this fire master planning process as an element of its community strategic planning initiatives. The Municipality's current Strategic Plan (August 9, 2023) is founded on four priorities: "Deliver Excellent Service, Grow Our Community, Promote Community Safety & Well-Being and Ensure Environmental Sustainability." The preparation, delivery and implementation of this FMP is identified within the Strategic Plan, under the Grow our Community Priority as one of the Municipality's "Strategic investments to diversify, rationalize assets and level of services"[5].

Within the Province of Ontario, the Fire Protection and Prevention Act, 1997 (FPPA) is the applicable legislation governing the delivery of fire protection services provided by municipalities. This legislation describes a municipality's responsibility as:

"establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention; and
provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances"[6].

The FPPA also provides the applicable legislation for several regulations that directly inform a municipality's responsibility for delivering fire protection services. The analysis presented within this FMP has been directly informed by the legislation contained within the FPPA and the following applicable regulations:

- Ontario Regulation 213/07 – Ontario Fire Code (OFC).
- Ontario Regulation 365/13 - Mandatory Assessment of Requests and Complaints.
- Ontario Regulation 364/13 – Mandatory Inspections and Fire Drills in Vulnerable Occupancies.

[5] Municipality of Chatham-Kent -Strategic Plan, Strategy Corp, Strategic Plan at a Glance, August 9, 2023

[6] Fire Protection and Prevention Act, 1997, Part II Responsibility for Fire Protection Services, Municipal Responsibilities, 2. (1) (a)(b).

- Ontario Regulation 378/18 – Community Risk Assessments.
- Ontario Regulation 343/22 – Firefighter Certification.

In addition to the FPPA, and the applicable regulations listed above this FMP has also been informed the requirements of the Occupational Health and Safety Act, R.S.O. 1990 (OHSA).

The objective of this FMP is to provide Council with a comprehensive FMP that is informed by the companion CRA report, the applicable legislation and current industry best practices. The scope of this FMP includes a comprehensive review of all current services and programs provided by the CKFR including the projected impacts of future community growth. Subject to Council's review of this FMP, including the proposed Strategic Priorities, this FMP will be utilized to inform Council's decision-making process with respect to the continued delivery of fire protection services.

The preparation of this FMP and accompanying CRA recognize the continued commitment of Council and senior municipal staff in striving to achieve the most effective and efficient level of fire protection services that prioritizes the safety of the public and firefighters resulting in the best value for the community.

2.0 Fire Master Planning Process

The development of this FMP has been informed by PFSG 03-02-13 Master Planning Process for Fire Protection Services and current industry best practices. This includes a comprehensive review of the efficiency and effectiveness of all current services and programs provided by the CKFR to support and deliver the current level of fire protection services being provided to the community. This includes administration, fire prevention and public education, training, fire suppression, apparatus and equipment, facilities, and communications (fire dispatching).

PFSG 03-02-13 identifies several 'guiding principles' to be considered within the fire master process including:

- The residents of any community are entitled to the most effective, efficient, and safe fire services possible.
- The content of existing collective agreements will be respected, and the collective bargaining process will be recognized as the appropriate channel for resolving labour relations issues under collective agreements and the Fire Protection and Prevention Act, 1997.
- Collective bargaining issues affecting public safety will be identified.
- Those responsible must work within these parameters in making recommendations for improving municipal fire services.

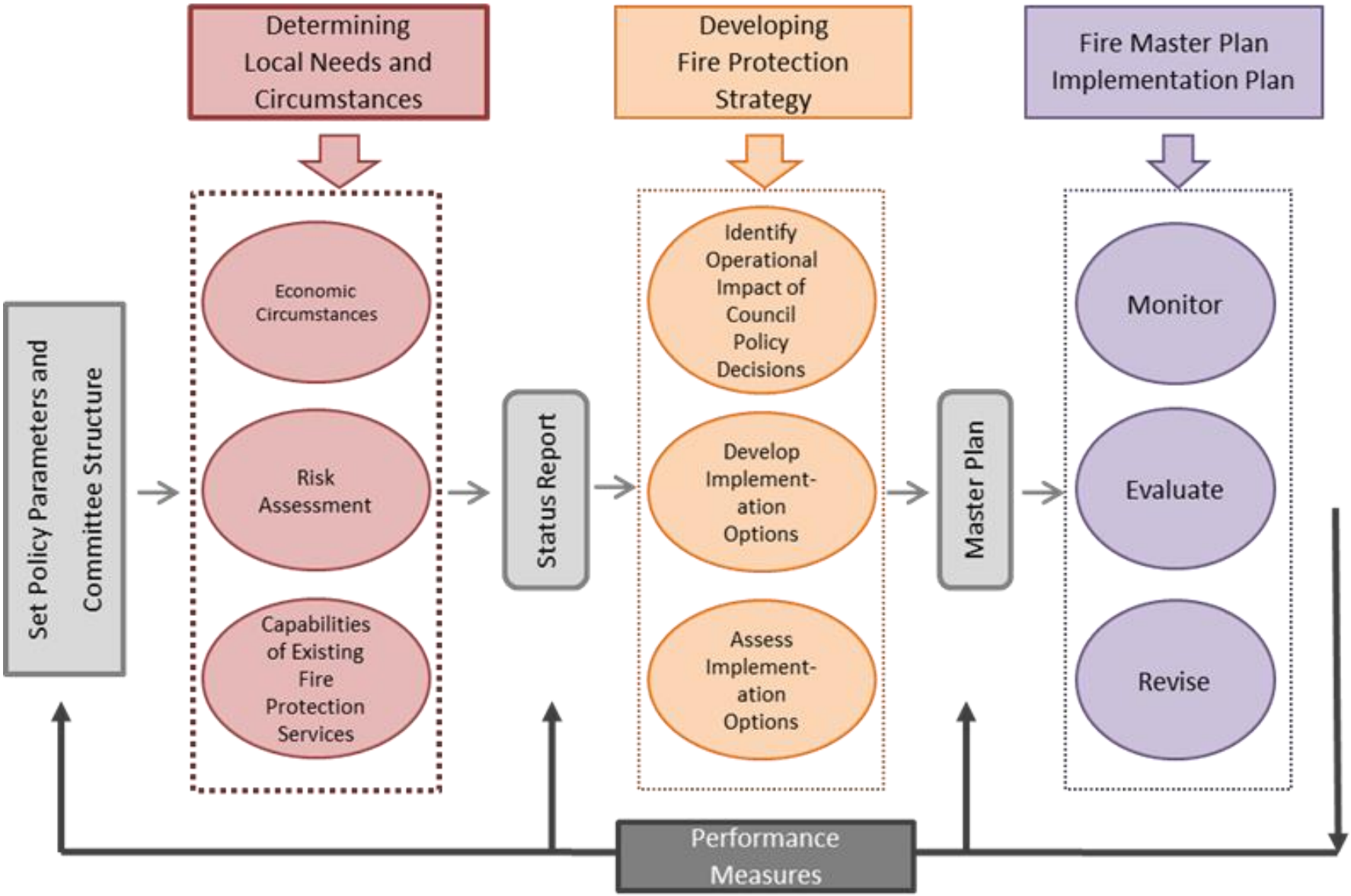
This FMP has also been informed by PFSG 01-01-01 Fire Protection Review Process that identifies factors to be considered in conducting the fire protection review process including:

- The overall objective of any fire protection program is to provide the optimum level of protection to the community, in keeping with local needs and circumstances.
- Extensive research has demonstrated that there are a variety of factors that will have an impact on the fire department's capacity to fulfill this objective.
- Conversely, there are many different options that a municipality may pursue to improve the efficiency and effectiveness of its fire protection system.
- Local circumstances will have a profound effect on which factors are most important for any one municipality, and what options are available for its fire protection system.

Selecting among these options is an extremely complex task. Success will require a combination of specialized expertise in fire protection, and a thorough appreciation of your municipality's economic, social and political circumstances.

Figure 1 reflects the framework for developing a Fire Master Plan for optimizing public fire safety.

Figure 1: Fire Master Plan Framework (PFSG 01-01-01)



2.1 Applicable Legislation

The preparation of this FMP has been informed by the applicable legislation in the Province of Ontario that was in place at the time of preparing this report. This includes the Fire Protection and Prevention Act, 1997 (FPPA), associated regulations, and Public Fire Safety Guidelines authored by the Office of the Fire Marshal (OFM).

This FMP was also informed by the requirements of the Occupational Health and Safety Act, RSO 1990 (OHSA) and Firefighter Guidance Notes authored by the Ontario Fire Services Section 21 Advisory Committee.

2.1.1 Fire Protection and Prevention Act, 1997

Within the Province of Ontario, the applicable legislation for the operation of a fire department is contained within the FPPA. In addition to promoting fire prevention and public safety, the FPPA is also the Act under which the Ontario Fire Code (OFC) is regulated. While all legislation should be read and understood in its entirety, the following are applicable sections of the FPPA for reference purposes to this fire master planning process.

Table 1: FPPA Definitions – Part 1

Part 1	Definitions
Definitions	1.(1) In this Act: “fire chief” means a Fire Chief appointed under section 6 (1), (2) of (4); (“chef des pompiers”). “fire code” means the fire code established under Part IV; (“code de prevention des incendies”). “fire department” means a group of firefighters authorized to provide fire protection services by a municipality, group of municipalities or by an agreement made under section 3; (“service d’ incendie”). “Fire Marshal” means the Fire Marshal appointed under subsection 8 (1); (“commissaire des incendies”). “fire protection services” includes fire suppression, fire prevention, fire safety education, communication, training of persons involved in the provisions of fire protection services, rescue and emergency services and the delivery of all those Services; (“services de protection contre les incendies”).

Part 1	Definitions
	"municipality" means the local municipality as defined in the Municipal Act, 2001; ("municipalite"). "prescribed" means prescribed by regulation ("prescript"). "regulation" means a regulation made under this Act; ("reglement"). "volunteer firefighter" means a firefighter who provides fire protection services either voluntarily or for a nominal consideration, honorarium, training or activity allowance; ("pompier volontaire").
Automatic aid Agreements	(4) For the purposes of this Act, an automatic aid agreement means any agreement under which: (a) a municipality agrees to ensure the provision of an initial response to fires and rescues and emergencies that may occur in a part of another municipality where a fire department in the municipality is capable of responding more quickly than any fire department situated in the other municipality; or (b) a municipality agrees to ensure the provision of a supplemental response to fires, rescues and other emergencies that may occur in a part of another municipality where a fire department situated in the municipality is capable of providing the quickest supplemental response to fires, rescues and other emergencies occurring in the part of the other municipality. 1997, c. 4, s. 1 (4).

Table 2: FPPA Definitions – Part 2

Part 2	Responsibility for Fire Protection Services
Municipal Responsibilities	2 (1) Every municipality shall: (a) establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention; and (b) provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances.
Services to be Provided	2 (3) In determining the form and content of the program that it must offer under clause(1)(a) and the other fire protection services that it may offer under clause (1)(b), a municipality may seek the advice of the Fire Marshal.
Automatic aid Agreements	2 (6) A municipality may enter into an automatic aid agreement to provide or receive the initial or supplemental response to fires, rescues, and emergencies.
Review of Municipal Fire Services	2 (7) The Fire Marshal may monitor and review the fire protection services provided by municipalities to ensure that municipalities have met their responsibilities under this section, and if the Fire Marshal is of the opinion that, as a result of a municipality failing to comply with its responsibilities under subsection (1), a serious threat to public safety exists in the municipality, he or she may make recommendations to the council of the municipality with respect to possible measures the municipality may take to remedy or reduce the threat to public safety.
Failure to Provide Services	2 (8) If a municipality fails to adhere to the recommendations made by the Fire Marshal under subsection (7) or to take any other measure that in the opinion of the Fire Marshal will remedy or reduce the threat to public safety, the Minister may recommend the Lieutenant Governor in Council that a regulation be made under subsection (9).
Regulation	2 (9) Upon the recommendation of the Minister, the Lieutenant Governor in council may make regulations establishing standards for fire protection services in municipalities and requiring municipalities to comply with the standards.
Fire Departments	5 (1) A fire department shall provide fire suppression services and may provide other fire protection services in a municipality, group of municipalities or in territory without municipal organization. 1997, c. 4, s. 5 (1).

Part 2	Responsibility for Fire Protection Services
Same	5 (2) Subject to subsection (3), the council of a municipality may establish more than one fire department for the municipality. 1997, c. 4, s. 5 (2).
Exception	5 (3) The council of a municipality may not establish more than one fire department if, for a period of at least 12 months before the day this Act comes into force, fire protection services in the municipality were provided by a fire department composed exclusively of full-time firefighters. 1997, c. 4, s. 5 (3).
Same	5 (4) The councils of two or more municipalities may establish one or more fire departments for the municipalities. 1997, c. 4, s. 5 (4).
Fire Chief, Municipalities	6 (1) If a fire department is established for the whole or part of a municipality or for more than one municipality, the council of the municipality or the councils of the municipalities, as the case may be, shall appoint a Fire Chief for the fire department.
Same	6 (2) The council of a municipality or the councils of two or more municipalities may appoint a Fire Chief for two or more fire departments.
Responsibility to Council	6 (3) A Fire Chief is the person who is ultimately responsible to the council of a municipality that appointed him or her for the delivery of fire protection services.
Powers of a Fire Chief	6 (5) The Fire Chief may exercise all powers assigned to him or her under this Act within the territorial limits of the municipality and within any other area in which the municipality has agreed to provide fire protection services, subject to any conditions specified in the agreement.

Table 3: FPPA Definitions – Part 3

Part 3	Fire Marshal
Appointment of Fire Marshal	8 (1) There shall be a Fire Marshal who shall be appointed by the Lieutenant Governor in Council.
Powers of Fire Marshal	9 (1) the Fire Marshal has the power: (a) to monitor, review and advise municipalities respecting the provision of fire protection services and to make recommendations to municipal councils for improving the efficiency and effectiveness of those services. (b) to issue directives to assistants to the Fire Marshal respecting matters relating to this Act and the regulations.

Part 3	Fire Marshal
	(c) to advise and assist ministries and agencies of government respecting fire protection services and related matters. (d) to issue guidelines to municipalities respecting fire protection services and related matters. (e) to co-operate with anybody or person interested in developing and promoting the principles and practices of fire protections services. (f) to issue long service awards to persons involved in the provision of fire protection services. (g) to exercise such other powers as may be assigned under this Act or as may be necessary to perform any duties assigned under this Act.
Duties of Fire Marshal	9 (2) It is the duty of the Fire Marshal: (a) to investigate the cause, origin and circumstances of any fire or of any explosion or condition that in opinion of the Fire Marshal might have caused a fire, explosion, loss of life, or damage to property. (b) to advise municipalities in the interpretation and enforcement of this Act and the regulations. (c) to provide information and advice on fire safety matters and fire protection matters by means of public meetings, newspaper articles, publications, electronic media and exhibitions and otherwise as the Fire Marshal considers available. (d) to develop training programs and evaluation systems for persons involved in the provision of fire protection services and to provide programs to improve practices relating to fire protection services. (e) to maintain and operate a central fire college. (f) to keep a record of every fire reported to the Fire Marshal with the facts, statistics and circumstances that are required under the Act. (g) to develop and maintain statistical records and conduct studies in respect of fire protection services. (h) to perform such other duties as may be assigned to the Fire Marshal under this Act.

2.1.2 Occupational Health and Safety Act

The Occupational Health and Safety Act (OHSA), RSO 1990 requires every employer to, "take every precaution reasonable in the circumstances for the protection of the worker"[7]. The OHSA provides for the appointment of committees and identifies the Ontario Fire Services Section 21 Advisory Committee as the advisory committee to the Minister of Labour with the role and responsibility to issue 'Firefighter Guidance Notes' to address firefighter-specific safety issues within Ontario.

Firefighter safety is a priority considering the activities and services to be provided by a fire department. This must include the provision of department policies and procedures/guidelines that are consistent with the direction of the OHSA Section 21 Guidance Notes for the fire service.

Firefighter safety is a core element of the proposed 'Strategic Priorities' presented within this FMP. This includes prioritizing 'firefighter training and certification' for the career and volunteer firefighters as required by O. Reg. 343/22 – Firefighter Certification.

2.2 Applicable Public Fire Safety Guidelines

The FPPA also includes defining the roles and responsibilities of the OFM. This includes assigning specific powers to the OFM that include "To issue guidelines to municipalities respecting fire protection services and related matters". Currently, the OFM is conducting a comprehensive review of all Public Fire Safety Guidelines (PFSGs). During this review process, the OFM has informed the fire service that the current PFSGs may be referred to for reference purposes. Where applicable, this FMP will identify relevant PFSGs for reference. Electronic copies of documents managed by the OFM, such as the existing PFSGs can be requested by emailing AskOFMEM@ontario.ca.

2.2.1 Ontario – Three Lines of Defence Strategy

Under the leadership of the OFM, the Province of Ontario has developed what is known as the Comprehensive Fire Safety Effectiveness Model (CFSEM) as detailed through PFSG 01-02-01. This includes a fire protection planning strategy known as the '**Three**

[7] Occupational Health and Safety Act, RSO 1990, c. O.1 Part III s. 25(2)(h)

Lines of Defence'. Historically, the fire service has focused on firefighters and fire suppression. The Three Lines of Defence model recognizes that there are steps that can be taken to reduce the risk of a fire including the probability of a fire occurring and the consequence of that fire.

The Three Lines of Defence model includes:

I. Public Education and Prevention;
II. Fire Safety Standards and Enforcement; and
III. Emergency Response

These are further defined as:

2.2.1.1 I. Public Education and Prevention

As outlined by the OFM, Public Education and Prevention means educating residents of the community on means for them to fulfill their responsibilities for their own fire safety is a proven method of reducing the incidence of fire. Only by educating residents can fires be prevented and can those affected by fires respond properly to save lives, reduce injury and reduce the impact of fires.

2.2.1.2 II. Fire Safety Standards and Enforcement

Ensuring that buildings have the required fire protection systems, safety features, including fire safety plans, and that these systems are maintained, so that the severity of fires may be minimized.

2.2.1.3 III. Emergency Response

Providing well trained and equipped firefighters directed by capable officers to stop the spread of fires once they occur and to assist in protecting the lives and safety of residents. This is the failsafe for those times when fires occur despite prevention efforts.

The CFSEM emphasizes the importance and value of preventing a fire. This is important from both an economic and public safety perspective. At the same time, the CFSEM ensures an appropriate level of health and safety for firefighters. The model also recognizes that developing programs and providing resources to implement the first line of defence (a proactive public education and fire prevention program) can be the most

effective strategy to reduce and potentially minimize the need for the other lines of defense.

The proposed 'Strategic Priorities' presented within this FMP support the optimization of the three lines of defense model including that the "The Municipality of Chatham-Kent supports the identification and implementation of services and programs that optimize the first two lines of defense, including public education and fire prevention, and the utilization of fire safety standards and fire code enforcement".

2.3 Applicable Industry Standards

The NFPA is an international non-profit organization that was established in 1896. The organization's mission is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus, codes and standards, research, training, and education. With a membership that includes more than 70,000 individuals from nearly 100 nations, NFPA is recognized as one of the world's leading advocates of fire prevention and an authoritative source on public fire safety.

NFPA is responsible for 300 codes and standards that are designed to minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation in the United States, as well as many other countries. It has more than 200 technical code and standard development committees that are comprised of over 6,000 volunteer seats. Members vote on proposals and revisions in a process that is accredited by the American National Standards Institute (ANSI).

Over the past decade the Ontario fire service has been transitioning to the use of NFPA standards to guide many of the services they provide. For example, the new O. Reg. 343/22 – Firefighter Certification requires the mandatory certification of fire protection service staff including firefighters (career and volunteer), fire inspectors/investigators, fire and life safety educators, training officers and emergency communicators (fire dispatching) to comply with the applicable NFPA standards.

In April 2019 the NFPA Standards Council voted to support a consolidation plan to combine the Emergency Response and Responder Safety (ERRS) standards, best practices and guides, by topic, into consolidated standards. The consolidation process began in January 2020 and is expected to be completed by 2025. NFPA has identified the new draft standards that will consolidate the existing single standard. For example, a

new NFPA 1750 standard will consolidate existing NFPA 1201, NFPA 1710, NFPA 1720 and NFPA 1730. The new draft standards are identified within **Table 4**. The analysis presented within this FMP considers the applicable NFPA Standards where they may be mandatory (O. Reg. 343/22) or alternatively where they may be considered a current industry best practice.

Table 4: Summary of Applicable NFPA Standards

Division	Applicable NFPA Standards [Consolidation Plan – New Draft Standard]
Fire Prevention	• NFPA 1730 – Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations (2019 Edition) [NFPA 1750]. • NFPA 1031 – Standard for Professional Qualifications for Fire Inspector and Plans Examiner (2014 Edition) [NFPA 1030]. • NFPA 1035 – Standard for Professional Qualifications for Fire and Life Safety Educator, Public Information Officer, and Juvenile Firesetter Intervention Specialist (2015 Edition) [NFPA 1030].S • NFPA 1033 – Standard for Professional Qualifications for Fire Investigator (2014 Edition) [single standard]. • NFPA 1300 Standard on Community Risk Assessment and Community Risk Reduction Plan Development (2020 Edition) [NFPA 1300].
Training	• NFPA 1041 – Standard for Fire Service Instructor Professional Qualifications (2019 Edition) [NFPA 1020]. • NFPA 1403 – Standard on Live Fire Training Evolutions (2018 Edition) [NFPA 1400].
Fire Suppression	• NFPA 1710 – Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments (2020 Edition) [NFPA 1750]. • NFPA 1001 – Standard for Firefighter Professional Qualifications (2019 Edition) [NFPA 1010]. • NFPA 1021 – Standard for Fire Officer Professional Qualifications (2020 Edition) [NFPA 1020].

Division	Applicable NFPA Standards [Consolidation Plan – New Draft Standard]
	• NFPA 1142 – Standard on Water Supplies for Suburban and Rural Fire Fighting (2017 Edition) [single standard].
Communications	• NFPA 1221 – Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems (2019 Edition) [NFPA 1225]. • NFPA 1061 – Professional Qualifications for Public Safety Telecommunications Personnel (2018 Edition) [NFPA 1225].
Mechanical	• NFPA 1901 – Standard for Automotive Fire Apparatus (2016 Edition) [NFPA 1900]. • NFPA 1911 – Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles (2017 Edition) [NFPA 1910].

2.3.1 National Institute of Standards and Technology

The National Institute of Standards and Technology (NIST) was founded in 1901 as a non-regulatory agency within the United States (US) Department of Commerce. NIST's mission is to promote US innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life.

In April of 2010, NIST released their Technical Note #1661 “Report on Residential Fireground Field Experiments” reflecting a collaborative research analysis conducted by leading fire service agencies. The analysis within this report investigated the effects of varying crew sizes, apparatus arrival times and response times on firefighter safety, overall task completion and interior residential tenability using realistic residential fires.

The result of a similar study identified in Technical Note #1797 “Report on High-Rise Fireground Field Experiments” was released in April 2013 that assessed the deployment of firefighting resources to fires in high-rise buildings. These studies are both examples of the technical research and analyses that are taken into consideration in order to develop and update the NFPA standards referenced within this FMP.

2.3.2 Commission on Fire Accreditation International

The Centre for Public Safety Excellence (CPSE) serves as the governing body for the two organizations that offer accreditation, education and credentialing: the Commission on Fire Accreditation International (CFAI) and the Commission on Professional Credentialing (CPC).

The CFAI defines itself as an organization that is committed to assisting fire and emergency service agencies throughout the world in achieving excellence through self-assessment and accreditation in order to provide continuous quality improvement and the enhancement of service delivery to their communities.

The objective of the CFAI program is to define an accreditation system that is a credible, achievable, usable, and realistic model. The ultimate CFAI goal is to provide an accreditation process to improve the abilities of municipalities to both understand and recognize their respective community fire risks, provide balanced public/private involvement in reducing these risks and improve the overall quality of life for community members using the accreditation model. Of importance to this fire master planning process is the CFAI strategy that seeks to achieve “continuous improvement” in the delivery of fire protection services.

The CFAI accreditation system is recognized as a current industry best practice within the fire service across North America. The CFAI strategy that promotes ongoing ‘continuous improvement’ is in our view an applicable strategic objective for all fire services, and specifically the CKFR.

2.4 Stakeholder Consultation

Internal and external stakeholder consultation is a core component of a comprehensive fire master planning process. Various consultation activities were held as part of the process to develop this FMP and accompanying CRA for the Municipality of Chatham-Kent.

Effective communication and consultation with all stakeholders is essential to the success of the fire master planning process for three reasons. First, the consultation process provides the opportunity to collect information towards further defining the local fire protection services needs and circumstances which feed directly into the fire

master planning process. The second reason is to ensure those responsible for implementing and affected by the FMP understand the basis on which certain decisions are made and why particular recommendations are made. Third, it is an opportunity to obtain feedback from the public, including key stakeholders, as well as to educate the public stakeholders on the fire master planning process and services provided by CKFR.

This section summarizes the internal and external stakeholder consultation processes that were conducted to inform the FMP and accompanying CRA.

2.5 Internal Stakeholder Consultation

The internal stakeholder consultation sessions provided valuable insight into the current strengths, weaknesses, opportunities and challenges within the Chatham-Kent Fire and Rescue. These elements of the consultation process resulted in a wide range of views and opinions that were considered within the analysis. The following subsections summarize the internal stakeholder consultation process with:

- Chatham-Kent Municipal Council;
- Project Steering Committee;
- Senior Municipal staff; and
- Chatham-Kent Fire and Rescue personnel, including:
  - Senior Management Team;
  - Divisional Leads;
  - Chatham-Kent Professional Fire Fighters Association (Local 486 of the International Association of Fire Fighters); and
  - Volunteer Firefighters.

2.5.1 Chatham-Kent Municipal Council

The community risk assessment and fire master planning process included two consultation sessions with members of Council. These included an initial educational workshop and the presentation of the Final Community Risk Assessment report.

2.5.1.1 Council Educational Workshop

On October 18, 2021, members of Council participated in an educational workshop that included an overview of the project scope, a review of Council's legislative

responsibilities with respect to the delivery of fire protection services including the Fire Protection and Prevention Act 1997, and the Occupational Health and Safety Act. This educational workshop provided all members of Council with the opportunity to provide their feedback into the current strengths, weaknesses, opportunities, and challenges (SWOC) within the CKFR and ask any questions about the process and project.

2.5.1.2 Presentation of the Final Community Risk Assessment

On June 20, 2022, an overview of the Final Community Risk Assessment Report was presented to members of Council. This report presented the legislative requirements, methodology and key findings of the Community Risk Assessment prepared for the Municipality of Chatham-Kent. The presentation also provided Council with an overview of the stakeholder consultation process for the Community Risk Assessment and Fire Master Plan project.

This session provided members of Council the opportunity to provide feedback on the Community Risk Assessment and ask questions of clarification in regard to the analysis presented.

2.5.2 Project Steering Committee

The project to develop a Community Risk Assessment and Fire Master Plan for the Municipality of Chatham-Kent was assigned to a Project Steering Committee comprised of the following members:

- Fire Chief;
- Assistant Chief of Logistics;
- Assistant Chief of Operations;
- Assistant Chief of Prevention and Community Safety;
- Assistant Chief of Training and Safety;
- President, Chatham-Kent Professional Fire Fighters Association (CKFPPA);
- Volunteer Station Chief, Station 8;
- Volunteer Station Chief, Station 18;
- General Manager/Director, Planning Services;
- Director, Budget, and Performance Services; and
- CKFR Executive Assistant.

The Project Steering Committee was intended to be a committee of administration, designed with representation from recognized internal stakeholder groups to support and facilitate ongoing and continuous engagement. The Steering Committee was involved in key project meetings and were provided with project updates at various stages throughout the project process.

2.5.3 Senior Municipal and Fire Department Staff

Consultation with senior municipal and CKFR staff provided valuable input at each step of the fire master planning process, providing information about context and background from different perspectives. This form of consultation is extremely beneficial to identifying issues and needs associated with the fire and rescue service. It also provides information that informs study analysis and recommendations. Engaging internal stakeholders ensures that multiple perspectives can be brought to the fire master planning process.

Interviews were held with several internal stakeholders to gain a comprehensive understanding of the existing conditions within the CKFR. The interviews focused on gaining an understanding of the current strengths, weaknesses, opportunities, and constraints/challenges (SWOC) facing the CKFR. Individual interviews were held with staff from the following internal stakeholders:

- Chief Administrative Officer;
- Director, Human Resources and Organizational Development;
- Director, Planning Services;
- General Manager, Planning Services;
- Fire Chief;
- Assistant Chief of Operations;
- Assistant Chief of Logistics;
- Assistant Chief of Prevention and Community Safety;
- Assistant Chief of Training and Safety; and
- Chatham-Kent Police Service Emergency Communication Centre (Fire Dispatch Provider) Personnel.

The initial interviews within the internal stakeholders listed above were an essential source of data regarding the operations and existing conditions within CKFR. They also

created a positive working environment for ongoing communication and collaboration throughout the project.

2.5.4 Chatham-Kent Professional Fire Fighters Association Consultation

Two primary methods were utilized to gain feedback from the Chatham-Kent Professional Fire Fighters Association: an interview with the Association's Executive Committee and an online survey.

2.5.4.1 Chatham-Kent Professional Fire Fighters Association Executive (Local 486 of the International Association of Fire Fighters) – Interview

The consultation process with the Chatham-Kent Professional Fire Fighters Association Executive was scheduled as a one-hour interview, conducted via video call on March 9, 2022. This interview was provided as an opportunity for the Association Executive to provide their feedback, as the voice for the Association Membership, regarding the Strengths, Weaknesses, Opportunities and Constraints (SWOC) of the Chatham-Kent Fire and Rescue to inform the fire master planning process.

The Association Executive expressed their view that their role was to discuss labour issues only, and that they did not think it was appropriate for the labour representatives to speak about the SWOC of the Chatham-Kent Fire and Rescue. Instead, they believed it was more appropriate to survey the complete membership of the Chatham-Kent Professional Fire Fighters Association to seek the opinions of individuals. As a result of this input, a survey was developed and provided to allow all members of the Chatham-Kent Professional Fire Fighters Association to participate. An overview of the on-line survey results are presented in the following section.

2.5.4.2 Online Survey – Chatham-Kent Professional Fire Fighters Association (CKPFFA)

Following the Association Executive's request to survey the Chatham-Kent Professional Fire Fighters Association (CKPFFA) members, Dillon worked with the CKFR staff to develop an online survey for the Association Members as part of the FMP process. The survey was hosted via SurveyMonkey and included the following questions:

What station are you currently assigned to? – 61 Responses Received

The survey included respondents representing a relatively equal assignment to Stations 1, 2 and 3.

How many years of service do you have with the department? – 61 Responses Received

The respondents included 33% with less than five years of service, 23% with six to ten years of service, 18% with 11 to 15 years of service, 15% with 15 to 20 years of service and 11% with more than 21 years of service.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Training? – 44 Responses Received

The respondents voiced consensus that the skills and competencies of the current Training Officers and Captains is the strength of the department training initiatives. This consensus was followed by many comments that there are not enough Training Officers to meet the training needs of the career and volunteer firefighters. There was further consensus that the lack of annual live fire training and 'hands on' training is a definite weakness within the department. There were several comments about the absence of a formal scheduled training plan. The comments also reflected a need to hire additional training officers.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Firefighter Staffing? – 40 Responses Received

The respondents focused their comments on the need to hire additional career firefighters to staff a third fire station in Chatham because of the fire related-risks present. There were many comments about the current 'call back' process of off duty career firefighters that ranged from 'working well' to the process is 'difficult to fill at night', 'causes undue hardship', and is 'very flawed' in its use of technology.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Emergency Response? – 32 Responses Received

There was consensus from the respondents that the current career emergency response capabilities, although understaffed when compared to current industry best practices, is effective because of the dedication and commitment of the current career officers and

firefighters. There were several comments related to the inability of the department to assemble enough firefighters on scene based on the fire-related risk present. There were also a few comments about the need to reconsider the current deployment protocols as they relate to ensuring the closest station or apparatus respond.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Administration (e.g., department organization, policies/procedures, agreements, by-laws)? – 23 Responses Received

There was consensus from the respondents that there are a lot of Chiefs, some included the Volunteer Station Chiefs in their comments. There were also several comments suggesting that the current Senior Management Team (SMT) is the most open and best to work with of those that have been in place in the past. There were also several positive comments about the new records management software.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Community Safety? – 23 Responses Received

There were many positive comments about the CHiRP (Chatham-Kent Homes: Informed, Ready, Protected) program and the positive response it received from the community. The respondents expressed a view that they are 'well received' by the community and that they think that the department overall is highly appreciated by the community.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Vehicles / Facilities? – 32 Responses Received

There was a very positive consensus from the respondents indicating a significant improvement in the quality of apparatus that has recently been purchased. The need for further standardization of equipment was identified and a need to upgrade/renovate the existing fire stations staffed by career firefighters.

Do you have any additional comments about strengths, weaknesses, opportunities, and constraints in any other areas of the department? – 20 Responses Received

Of the 20 people who responded to this question 6 indicated 'no' or 'not at this time'. Many of the comments received reiterated the responses to previous questions. The additional comments received included the need to overhaul the current promotional process, the need to consider putting gyms in the fire stations, the need to separate the

volunteer and career sectors and the need to improve the mental health support within the department.

Where would you like to see Chatham-Kent Fire and Emergency Services in the next ten years? – 25 Responses Received

The respondents' comments can be categorized into the following themes, increase in the number of career firefighters and fire stations and enhanced career firefighter/officer training program.

Is there anything else you would like to tell us as part of this consultation? – 12 Responses Received

The majority of the respondents re-emphasized their previous comments to other questions. There was one new notable comment that stated, "It's my hope that this document can be a catalyst for change in a positive and lasting manner".

2.5.5 Volunteer Firefighter Consultation

Engagement with the volunteer firefighters was conducted through two forms of consultation: virtual workshop sessions and an online survey.

2.5.5.1 Volunteer Firefighter Workshop Sessions

Four virtual workshop sessions were held to provide engagement opportunities with the volunteer firefighters. Each of the four sessions started with a virtual presentation of the project overview. The sessions were held on July 14, 2021, and July 15, 2021, from 7:00 PM to 8:00 PM and from 8:00 PM to 9:00 PM both nights.

Following the presentation, there was an opportunity for questions and discussion on the SWOC of the CKFR. However, the amount of time available for questions was limited due to the scheduling of two sessions each evening. The volunteer firefighters were informed about the on-line survey as a further opportunity to provide feedback.

The following is a summary of the consistent themes that evolved from these four consultation sessions with the volunteer firefighters:

- There was consensus that the current auxiliary training program works well but that it takes a long time to complete (minimum of a year) before people get a chance to become a volunteer firefighter.

- There was consensus that the ongoing training is different at each of the stations staffed with volunteer firefighters. Once they complete the Auxiliary Training Program, they don't participate in live fire training again. There is also minimal training done with other stations, even those that they may respond with.
- There is some hope that the new provincial certification process will help to standardize training across the department.
- The volunteers have participated in the CHIRP program and think it is very well received in their communities. Would like to be more involved in public education if time allowed.

2.5.5.2 Online Survey – Volunteer Firefighters

Dillon worked with the CKFR staff to develop an online survey for the Volunteer Firefighters as part of the FMP process. The survey was hosted via SurveyMonkey and included the following questions:

What station are you currently assigned to?

A large number of respondents participated in this survey. However, many of them may not have realized the need to click this tab as part of the survey. Therefore, the station assignments are not available for all respondents.

How many years of service do you have with the department?

Completed information is also not available to respond to this question.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Training?

There was consensus that the current auxiliary training program works well but that it takes a long time to complete (minimum of a year) before people get a chance to become a volunteer firefighter.

There was also consensus that the ongoing training is different at each of the stations staffed with volunteer firefighters. Once they complete the Auxiliary Training Program, they don't participate in live fire training again. There is also minimal training done with other stations, even those that they may respond with.

There is some hope that the new provincial certification process will help to standardize training across the department.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Volunteer Firefighter Recruitment/Retention?

The respondents indicated that they know of others within their community that would like to become a volunteer firefighter. There was consensus that consideration should be given to expanding the geographical area/response time limits around stations where potential volunteers can live (or work).

Comments were also received indicating that further consideration should be given to the degree of recognition/ appreciation given for the dedication and commitment of the volunteers, their families, and employers.

Consider what are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Emergency Response?

There was consensus that consideration needs to be given to improving the current Incident Command process and span of control at an incident particularly when multiple stations respond.

There was also consensus that the current deployment protocols need to be revised to include the simultaneous dispatching of the closest station (s) and apparatus (career and/or volunteer) to respond regardless of historical geographical boundaries, and that the dispatch process needs to consider the type of incident/risk level (as per best practices in the industry).

Comments were also received indicating that consideration should be given to allowing the volunteers to backfill the career stations when they are committed at an incident.

There was consensus that the volunteers should be required to respond directly to the first station and not be allowed to respond directly to an incident in their personal vehicles. Consideration should also be given to allowing the volunteers to respond the closest station to where they live as well as where they work.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Administration (e.g., department organization, policies/procedures, agreements, by-laws)?

There was consensus that there is a high degree of trust and respect for the current SMT and that there is a desire to have more direct communication and interaction with all members of the SMT.

There were a large number of comments indicating that the current workload assigned to the Volunteer Station Chefs may not be sustainable, and that consideration should be given to reviewing the current rank structure, roles and responsibilities, compensation and organizational model.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Community Safety?

The volunteers have participated in the CHIRP program and think it is very well received in their communities. Would like to be more involved in public education if time allowed.

What are the strengths, weaknesses, opportunities, and constraints of the department as it pertains to Vehicles/Facilities?

There was consensus that there are several volunteer stations that need repair/renewal including better areas for the storage of 'bunker gear'. Many comments recognized that the current quality of the apparatus and equipment would be considered a strength of the department.

The volunteers also expressed a desire to be more involved in the planning process for fleet, equipment, and facility decisions.

What are the strengths, weaknesses, opportunities, and constraints of the department that we may not have asked you about?

The responses for this question and the next question were similar and/or the same.

Where would you like to see Chatham-Kent Fire and Emergency Services in the next ten years?

The respondents consistently indicated that "we are all on the same team and should act like it" we are "one unified team," and that the current "relationship between career and volunteers should be recognized as a weakness of the department". The respondents consistently supported the vision of becoming a fully integrated composite department.

Is there anything else you would like to tell us as part of this consultation?

The comments to this question can be categorized into three core themes including:

- The paging of current volunteer firefighters, dispatch clarity and accuracy should be identified as an area for improvement.
- Consideration should be given to an increased use of technology across the department.
- In the future more time should be allotted for discussion when utilizing virtual stakeholder sessions with the volunteers.

2.1 External Stakeholder Consultation

The external stakeholder process included an Online Public Survey and Targeted Stakeholder Consultation which are summarized in the following subsections.

2.1.1 Online Public Survey

The goals of the online public survey were firstly, to educate the public about their responsibilities with regard to fire safety, and secondly, to gain an understanding of what their knowledge is, and what their experiences have been, in relation to the fire and rescue department. Residents were made aware of the survey through the Municipality's **Let's Talk Chatham-Kent** Platform, social media and dissemination of notices/advertisements.

Access to the survey was open from October 14, 2021, to December 1, 2022. During this time a total of 293 participants provided feedback. The following is a summary of the online public survey responses:

- When participants were asked if they were aware that CKFR is a "composite" or "combination" fire department, 259 participants (88%) responded that they were aware compared to 36 participants (12%) who answered that they were not aware.
- Participants were most familiar with the Chatham-Kent Fire and Rescue, providing services in three main areas. These areas were fire inspections, fire investigations and responding to technical rescue – Ambulance/Medical Assists. Building permits reviews of new developments had the lowest level of awareness.
- When asked if the services provided by the CKFR are in line with needs of the community, 191 participants (65%) responded that they are. 49 participants (16%) responded that their services are not in line, and 55 participants (19%) were unsure.
- Within the past five years, 204 (69%) of the participants stated that they had not been involved with an emergency response call provided by the CKFR. Compared to 89 participants (30%) that answered that they had been involved with an emergency response call provided by the CKFR. Two participants (0.7%) were unsure of whether or not they had been involved in an emergency response call.
- Within the past five years, 197 participants (67%) responded that they had not received services provided by the CKFR while 94 participants (32%) had services provided by the CKFR. Five participants (2%) were unsure of whether or not they received services from the CKFR.
- When participants were asked how they would like to receive public safety information from the CKFR, the most common answer was through social media via Facebook (177), School Programs (156) and Chatham-Kent Fire and Emergency Services Presence at Community Events (153). The least common way of how participants wished to receive information was through social media – Other and signage in municipal facilities (e.g., facility television screens, etc.).
- 270 (90.6%) participants stated that they have smoke alarms on every storey of their home. 24 (8.1%) participants stated that they do have smoke alarms, however, only on one storey of their residence. Three of the participants stated that they did not have a smoke alarm, two of which stated that they would get one after completing the survey.
- 205 participants (67.9%) stated that they have a carbon monoxide detector near all sleeping areas and 78 participants (25.8%) have at least one carbon monoxide detector in their place of residence. 16 participants (5.3%) did not have a carbon

monoxide detector, three (0.1%) of whom responded that they would get one after completing the survey. Of the participants who responded that they do not have a carbon dioxide detector, half of the participants answered that it was because they do not have a fuel-burning appliance and/or an attached garage. However, the other half answered that they do have fuel-burning appliances and/or an attached garage.

- Regarding an escape plan (or home fire escape plan), 93 participants (31.5%) responded that they do have one and it has been practiced with the entire household. 120 participants (40.7%) answered that they have a home escape plan, but have not practiced it. 48 participants (16.3%) answered that they do not have a fire escape plan, but after completing this survey they will prepare and practice one. 36 participants (12.2%) stated that they do not have an escape plan.
- Regarding an emergency action plan, 81 participants (27.5%) responded that they do have an emergency plan and a 72-hour emergency kit. 61 participants (20.7%) answered that they do have an emergency action plan. A total of 24 respondents (8.1%) identified that they do have a 72-hour emergency kit. 150 participants (50.8%) stated that they do not have one, of which 80 participants (27.1%) responded that they will get one to be better prepared.

2.1.2 Targeted Stakeholder Interviews

Targeted stakeholders were identified as those representatives from community groups, businesses, institutions, or other groups that would have direct and regular contact with CKFR. A total of 14 stakeholder groups were represented by participants in a telephone survey conducted by Dillon staff. The targeted stakeholder list was provided by CKFR staff overseeing the Fire Master Plan project and included:

- Chatham Kent Health Alliance;
- Chatham Kent Emergency Medical Services;
- Chatham Kent Insurance Brokers Association;
- Chatham-Kent Landlord Association;
- Chatham Kent Real Estate Board;
- Delaware Nation Chief;
- Kent Federation of Agriculture;
- Lambton Kent District School Board;

- Lower Thames Conservation Authority;
- Piroli Group;
- St. Clair College;
- St. Clair Catholic District School Board (SCCDSB);
- St. Clair Region Conservation Authority; and
- University of Guelph (Ridgetown Campus).

The telephone survey consisted of five questions that invited participants to comment on the services provided by CKFR that had been accessed and their experiences related to receiving those services. The five questions were:

Has your business/organization/community group used any services provided by the Chatham-Kent Fire and Rescue? If yes, which services did you or your group access?

Participant organizations have accessed a range of CKFR services including emergency response for fire/fire alarms, medical calls, community emergencies (e.g. flooding events), and technical rescue emergencies. They have also accessed fire prevention and public education services including fire safety inspections (including hoarding concerns), 'after the fire' follow-up visits, CHiRP checks, home escape planning, fire route/fire safety planning, annual fire drills, fire extinguisher training, fire warden training, pre-fire planning, and the smoke alarm program. The participating organizations also valued the information provided to them by CKFR upon request regarding specific fire code or public education questions.

If you have received services provided by the Chatham-Kent Fire and Rescue, were you satisfied with the reliability, processes and/or the operations of those services? (For example, if your organization been inspected by the Chatham-Kent Fire and Rescue, were you satisfied with the inspection process?) Please comment on concerns or issues related to any of the services provided by the Chatham-Kent Fire and Rescue.

The feedback to this question was very positive regarding CKFR and their services. All of the participants identified a number of strengths of the department including the responsiveness, reliability, communication, and cooperation. Participants expressed being very satisfied with services provided in the past. CKFR personnel were described as courteous, helpful and great to deal with by participants. Stakeholder contributors specifically referenced the communication and cooperation of Community Safety (Fire

Prevention and Public Education) staff and the Fire Chief. It was stated that the participants value CKFR tremendously. The department was recognized for participation on committees within the Municipality that support vulnerable individuals. One participant expressed an interest in seeing enhanced response capabilities relating to local agricultural risks in the Municipality.

In your view, do any current policies or procedures of Chatham-Kent Fire and Rescue impede or impact how you do business? Please comment on what can be done differently than what is being done today?

One response stated an understanding that the department's policies and procedures are there for a reason, and they are accepting of them, without issue. One participant noted that the policies and procedures compliment their organization by supporting community safety. Another participant identified their desire to better understand the procedures of the department, especially around dispatch and emergency response. One participant suggested seeking an updated Fire Underwriters Survey review to improve area rating. One participant identified the burn permit process in rural areas as an area for improvement.

Do you believe that the services provided by Chatham-Kent Fire and Rescue align with the needs of your business/organization/community group? If not, how could this be improved?

Almost all participants agreed that CKFR services are well-aligned with needs. Addressing hoarding concerns was raised as an area for potential enhancement. The Community Safety and Well-Being Task Force, and CKFR involvement, was highlighted as a well-aligned initiative. Incidents of overdoses are frequent in the community and stakeholders noted that CKFR has been very responsive to these issues and incidents.

One participant raised an issue where the response arrived at an incorrect address (isolated event). One participant, external to the Municipality of Chatham-Kent, identified potential opportunities to receive additional services from CKFR. A few of the participants suggested a potential improvement would be scheduled, regular communication with CKFR. One participant suggested opportunities for enhanced public education programming for all grades at schools. One participant suggested the department consider 'Farm 911 Emily Project' to improve signage/route accesses on farms.

Do you have any other comments or concerns regarding Chatham-Kent Fire and Rescue that you wish to provide through this consultation process?

Participants referenced communicating with the department at various levels, including through the Fire Chief, Public Educator, fire prevention staff and department administration team. All interactions were noted as positive. Department was described as willing and active partners in the community. The participants were very supportive of public education programming and welcomed the potential to more frequent and enhanced public education services.

3.0 Community Risk Assessment

The preparation of this FMP included the development of a companion CRA. The Municipality of Chatham-Kent – Community Risk Assessment report was presented to Council in June 2022. The methodology applied to developing the CRA was directly informed by the requirements of O. Reg. 378/18 – Community Risk Assessment, and OFM Technical Guideline (TG)-02-2019 (TG-02-2019). This guideline recognizes the value of understanding the fire risk within a community, and the importance of developing fire risk reduction and mitigation strategies in addition to providing fire suppression services.

TG-02-2019 requires the mandatory analysis of nine profiles including a municipality's geography, building stock, critical infrastructure, demographics, public safety response, community services, hazards, economics, and past loss and event history. The following sections summarize the risk conclusions of the CRA including the 'identified risks' and 'key findings' that have been applied to inform the comprehensive analysis of the existing, and future fire protection needs of the Municipality of Chatham-Kent through the development of this FMP.

3.1 Identified Risks

Through the application of the methodology identified in TG-02-2019 the CRA presents sufficient quantitative data to confirm the presence of 'identified risks' within the community. The CRA methodology then considers the 'probability' and 'consequences' of each identified risk in assigning a 'risk level' including high, moderate, and low. **Table 5** presents a summary of the 'identified risks' and their applicable risk level that have been utilized to directly inform the analysis and recommendations presented within this FMP.

Table 5: Chatham-Kent CRA – Identified Risks

Identified Risks	Risk Level
There is one ingress and egress route for the community of Erieau (Erieau Road). Closure of Erieau Road due to flooding or other incidents has the potential to reduce the connectivity of the road network to this area resulting in potential impacts on emergency response capabilities.	High
Motor vehicle-related incidents on the existing road network represent 12.7% of the historical emergency responses of CKFR.	High
The bluffs along Chatham-Kent's Lake Erie shoreline present a risk associated with residents and visitors participating in activities that may require specialized rescue services (e.g., high angle rope rescue).	Moderate
Flooding and erosion have the potential to require community evacuation and/or disrupt the road network, resulting in potential impacts on emergency response capabilities.	Moderate
The presence of waterways within and surrounding Chatham-Kent creates a potential need for specialized technical ice and water rescue services.	High
Group C – Residential Occupancies represent 91.3% (36,681) of the Municipality's existing building stock, and over the five-year period from January 1, 2015, to December 31, 2019 were associated with 72.5% (296) of the structure fires within the Municipality.	High
The 2016 Census data indicates that 75.5% (32,480) of the Municipality's Group C-Residential building stock was built prior to the introduction of the 1981 Ontario Fire Code and Ontario Building Code compared to 53.1% (2,742,720) of residential building stock in the remainder of the Province.	High
The Municipality currently has 19 building defined by the Ontario Building Code (OBC). as high-rise buildings with a floor level 18 metres (59 feet) above grade, or six storeys. These buildings are primarily located within the settlement area of Chatham.	High
The Municipality has 131 buildings with a total building area (footprint) that exceed 50,000 square feet. These buildings are located throughout the Municipality in both the urban and rural areas.	High
The Municipality currently has 76 vulnerable occupancies.	High
Seniors (those 65 years and over) are considered to represent one of the highest fire risk groups across the Province based on residential	High

Identified Risks	Risk Level
fire death rate. According to the 2016 Census, seniors represent 21.1% (21,415) of the Municipality's total population.	
All reported fire fatalities (3) and the majority of fire related civilian injuries (five) occurred in Group C – Residential occupancies.	High
Of the fires occurring in the Municipality over the five-year period from January 1, 2015, to December 31, 2019, the leading cause of unintentionally set fires was due to misuse of ignition source at 25.7% (105 fires), compared to 29.9% in the Province.	Moderate
Of the fires occurring in the Municipality over the five-year period from January 1, 2015, to December 31, 2019, the second most common cause of unintentionally set fires was due to mechanical/ electrical failure at 15.2% (62 fires), compared to 15.4% in the Province.	Moderate

3.2 Key Findings

In contrast to the CRA 'identified risks' the 'key findings' represent where there was insufficient quantitative data to determine the probability and consequence in an identifiable risk level. However, there is sufficient data available to confirm that this information is important to informing the applicable fire protection services that may be required. It is also important to recognize that further data may become available in the future during the update of the CRA that provides sufficient quantitative data to determine a risk level in the future. **Table 6** presents a summary of the CRA 'key findings' that applicable to this fire master planning process.

Table 6: Chatham-Kent CRA – Key Findings

Identified Risk
The Municipality of Chatham-Kent spans a large geographical area which could result in extended emergency response times for some areas of the municipality.
There are roads within the Municipality that have been identified as hazardous material routes that may require hazardous materials response.
There are currently 12 bridges within the Municipality which have load limits, affecting the ability of fire department apparatus to cross.
Funding-related challenges for bridge maintenance could make bridge-related restrictions more common potentially affecting emergency response times.

Identified Risk
The Ridge Landfill presents a risk associated with a fire occurring within the landfill site.
The at-grade road-rail crossings have the potential to impact emergency response times.
There are properties within the Municipality that have fuel-load related concerns linked to marinas.
For the period of 2015 to 2019, there were 32 outdoor fires, 4.8% of all fires responded to by CKFR.
The Municipality includes areas of building stock that have higher density and, as such, greater potential for exposure in the event of a fire.
CKFR identified several properties within Chatham-Kent as having an increased potential for high fire risk in regards to fuel load, many of them related to agriculture.
Silos and grain elevators in the Municipality may require specialized rescue and present unique hazards during an emergency call.
In addition to registered vulnerable occupancies, the Municipality has 46 elementary schools and 28 identified daycare centres, representing higher fire life-safety risks due to the number of children attending these facilities.
There are a number of identified heritage buildings within the Municipality of Chatham-Kent, many of which were constructed prior to the introduction of the Ontario Fire Code.
The Chatham-Kent Municipal Airport presents a number of unique fire related risks associated with aircraft, supporting infrastructure and the potential transportation of dangerous goods requiring specialized fire protection services.
Different areas of the Municipality are serviced by hydrants with varying rates of flow. Primarily the urban areas are serviced by fire flow rated hydrants. Hydrants in the rural area are available as a water supply.
The 2016 Census data indicates that children aged 14 and under represent 16.4% (16,650) of the Municipality's total population.
Of the Municipality's total population, 30.0% (30,445) fall into the age range of 45 to 64, representing a cohort aging towards the senior's demographic of 65 years or older.
The Municipality's agricultural sector employs Temporary Foreign Workers resulting in a population shift.
The Municipality's 2017 Hazard Identification and Risk Assessment (HIRA) identifies hazards that could each impact the ability of the Municipality to deliver fire protection services.

Identified Risk
There are abandoned wells throughout the Municipality, including oil and gas wells, which could pose a threat to life, property, local economy, and environment if an explosion were to occur.
The Municipality has identified top employers that contribute to the economic vitality of the community. If a fire were to occur at one of these facilities it could have a negative impact on the financial well-being of the Municipality.
Over the five-year period from January 1, 2015, to December 31, 2019, the municipality averaged 82 structure fires per year.
Over the five-year period from January 1, 2015, to December 31, 2019, structure fires occurring in Group F – Industrial occupancies account for 9.3% of total structure fires within the Municipality and 16.7% of total structure fire loss.
Over the five-year period from January 1, 2015, to December 31, 2019, structure fires occurring in buildings classified within the National Farm Building Code and in other buildings not classified within the OBC, accounted for 10.6% of total structure fires.
Of the fires occurring in the Municipality over the five-year period from January 1, 2015, to December 31, 2019, the cause of 26.5% of fires was 'undetermined', 7.8% higher than the Province.
Of the fires occurring in the Municipality over the five-year period from January 1, 2015, to December 31, 2019, 12.5% of fires had a reported ignition source of cooking equipment, which is 4.8% lower than the Province (17.3%).
Of the fires occurring in the Municipality over the five-year period from January 1, 2015, to December 31, 2019, 10.5% of fires had a reported ignition source of miscellaneous, which is 0.6% higher than the Province (9.9%).
Of the fires occurring in the Municipality over the five-year period from January 1, 2015, to December 31, 2019, 8.6% of fires had a reported ignition source of open flame tools/smokers articles, which is 5.4% lower than the Province (14.0%).
Of the fires occurring in the Municipality over the five-year period from January 1, 2015, to December 31, 2019, the ignition source for 34.3% of fires was undetermined, 10.9% higher than the Province (24.4%).
Over the five-year period from January 1, 2015, to December 31, 2019, of the fire loss incidents in Group C – Residential occupancies, 23.0% of incidents did not have a smoke alarm present (compared to 17.3% in the Province).
Over the five-year period from January 1, 2015, to December 31, 2019, of the fire loss incidents in Group C – Residential occupancies, 40.8% of incidents had a smoke alarm present and operating compared to 45.3% in the Province.
Over the period from January 1, 2015, to December 31, 2019 the volume of emergency calls responded to by CKFR increased by 21.3%.

Identified Risk
For the period from January 1, 2015, to December 31, 2019 the highest percentage of emergency call volume responded to by CKFR as defined by the OFM response types was medical/resuscitator calls representing 32.8% of total emergency call volume.
For the period from January 1, 2015, to December 31, 2019, the second highest percentage of emergency call volume responded to by CKFR as defined by the OFM response types was false fire calls representing 16.5% of total emergency call volume.
For the period from January 1, 2015, to December 31, 2019, the third highest percentage of emergency call volume responded to by CKFR as defined by the OFM response types was rescue calls representing 14.2% of total emergency call volume.
For the period from January 1, 2015, to December 31, 2019, 8.3% of CKFR Calls by OFM Response Type were Property Fire/Explosions. Of these calls, 2.9% were loss structure fires and 3.7% were no loss fires.
For the period from January 1, 2015, to December 31, 2019, there is a concentration of calls by call type in the downtown area of these communities, there is also variation in the location of higher concentration of historic calls in Chatham and Wallaceburg depending on the type of call.

3.3 Proposed Recommendations

This FMP also includes recommendations that have been informed by the comprehensive analysis of the current fire protection services and programs provided by the CKFR. Where applicable the analysis presented, and the proposed recommendations have also considered the predicted community growth consideration provided by the municipality. The primary objective of the proposed recommendations is to support the proposed 'Strategic Priorities' presented within this FMP.

3.4 Proposed Strategic Priorities

The fire master planning process is intended to provide a strong focus on developing and implementing strategies that support the provision of the most effective and efficient delivery of fire protection services that prioritize the safety of the public and firefighters resulting in the most value to the community.

The Municipality's Request for Proposal (RFP)-202-19 specifically references that "The plan outcomes must establish strategic priorities complete with actions plans". As such, this FMP includes proposed strategic priorities that have been informed by the research and analysis that was completed to inform this FMP. The proposed strategic priorities

are intended to provide Council with a framework for informing its decision-making process with respect to the overall delivery of fire protection services within the Municipality over the next ten-year community planning horizon.

Our analyses in preparing this FMP have included an assessment of compliance with applicable legislation, review of all current operations of the CKFR and informed by our knowledge of current industry best practices. Collectively, this analysis has been utilized to identify the following proposed strategic priorities for Council's consideration as part of this fire master planning process. The proposed strategic priorities include:

I. The Municipality of Chatham-Kent is committed to supporting the transition of the Chatham-Kent Fire Rescue into a fully integrated, composite fire service operating model.
II. The Municipality of Chatham-Kent recognizes the need to utilize new provincial legislation to provide the foundation for the Municipality to review and revise its current fire protection organizational structure and operational capabilities to deliver the most effective and efficient level of fire protection services that prioritizes the safety of the public and firefighters resulting in the best value for the growing community.
III. The Municipality of Chatham-Kent is dedicated to prioritizing strategies that support the sustainability of a fully integrated, composite fire service operating model including recognition of the historical commitment of those who have dedicated their services to the community in the past.
IV. The Municipality of Chatham-Kent supports the identification and implementation of services and programs that optimize the first two lines of defence, including public education and fire prevention, and the utilization of fire safety standards and fire code enforcement.

Recommendation 1: That the Council of the Municipality of Chatham-Kent adopt the proposed 'Strategic Priorities' presented within the proposed Fire Master Plan to inform their decision-making process with respect to the delivery of fire protection services over the next ten-year community planning horizon.

4.0 Chatham-Kent Fire Rescue Overview

Since the creation of the Municipality of Chatham-Kent in 1998 the Chatham-Kent Fire and Rescue has evolved into its current organizational and operational model. This includes a total of 8 full-time Administration staff, 72 career firefighters and approximately 351 volunteer firefighters[8] operating from 19 fire stations located throughout the municipality.

The current organizational model of the CKFR is defined as a 'combination' or 'composite' "fire department having emergency service personnel comprising less than 85 percent majority of either volunteer or career membership"[9]. Under the direction of the Fire Chief the current organizational structure of the CKFR is based on a functional command system which includes four Assistant Chiefs with responsibility for operations, logistics, prevention and community safety and training and safety.

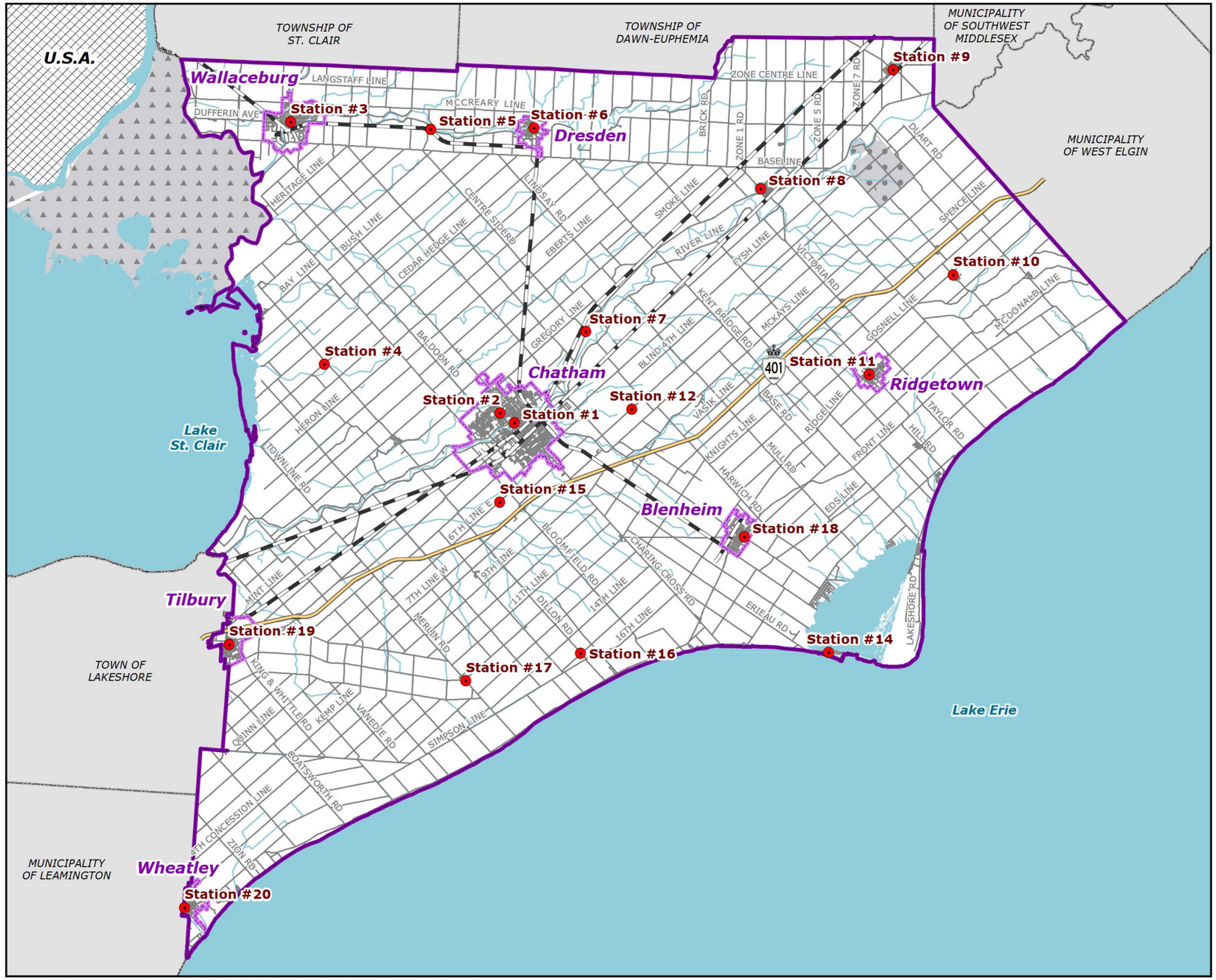
The current authority of the CKFR to provide fire protection services is contained within By-Law Number 292-2004 that was approved by Council on November 15th, 2004. This by-law references the delivery of a wide range of protection services including fire prevention, fire suppression, technical rescue, public education programs public assistance, fire investigations and training.

Figure 2 illustrates the existing locations of the Municipality's 19 fire stations many of which continue to be located in the communities that were present prior to amalgamation.

[8] This represents the total number of volunteer firefighters approved by Council. At the time of preparing this FMP the total number of volunteer firefighters was in transition as auxiliary firefighters were completing their training and being assigned to stations.

[9] National Fire Protection Association 1720 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments, Chapter 3, Definitions, 3.3.16.1 Combination Fire Department.

Figure 2: Existing Municipality of Chatham-Kent Fire Station Locations



EXISTING STATION LOCATIONS

- Fire Station
- Railway
- Highway 401
- Road
- Primary Urban Area
- Municipal Boundary of Chatham-Kent
- Moravian 47 First Nations Reserve
- Walpole Island 46 First Nations Reserve

DATA PROVIDED BY THE MUNICIPALITY OF CHATHAM-KENT, MNRF, STATISTICS CANADA (2016)
MAP CREATED BY: LK, DILLON CONSULTING
MAP CHECKED BY: SCD
MAP PROJECTION: NAD 1983 UTM Zone 17N

Kilometres
0 5 10

N W E S

Municipality of Chatham-Kent
Information Technology Services
315 King Street West
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PROJECT: 20-3619
STATUS: DRAFT
DATE: 2023-10-27

Document Path: K:\2020\203619\mxd\StationLocationStudy\Existing_Conditions_202301\Figure_StationLocations.mxd

5.0 Administration Division

This section of the FMP describes the roles and responsibilities of the Administration Division, which provides strategic direction and overall administration and management to Chatham-Kent Fire and Rescue. This section also outlines the existing organizational structure, and reviews the primary administration practices, vision and mission, management roles and responsibilities, applicable by-laws, current service agreements, departmental operating guidelines, and records management procedures within the department.

5.1 Existing CKFR Organizational Structure

Figure 3 illustrates the existing organizational structure of the CKFR. This structure includes a senior management team consisting of the Fire Chief, Assistant Chief of Operations, Assistant Chief of Logistics, Assistant Chief of Prevention and Community Safety and the Assistant Chief of Training and Safety. As the CKFR follow a functional command system, personnel directly access the Assistant Chiefs regarding matters within each Assistant Chiefs' assigned portfolio.

The Fire Chief and the senior management team are supported by the Executive Assistant. The administrative functions of the department are also supported by two Administrative Assistants. Detailed descriptions of the roles and responsibilities for these positions are presented within the following sections of this divisional analysis.

Figure 3: Existing Organizational Structure

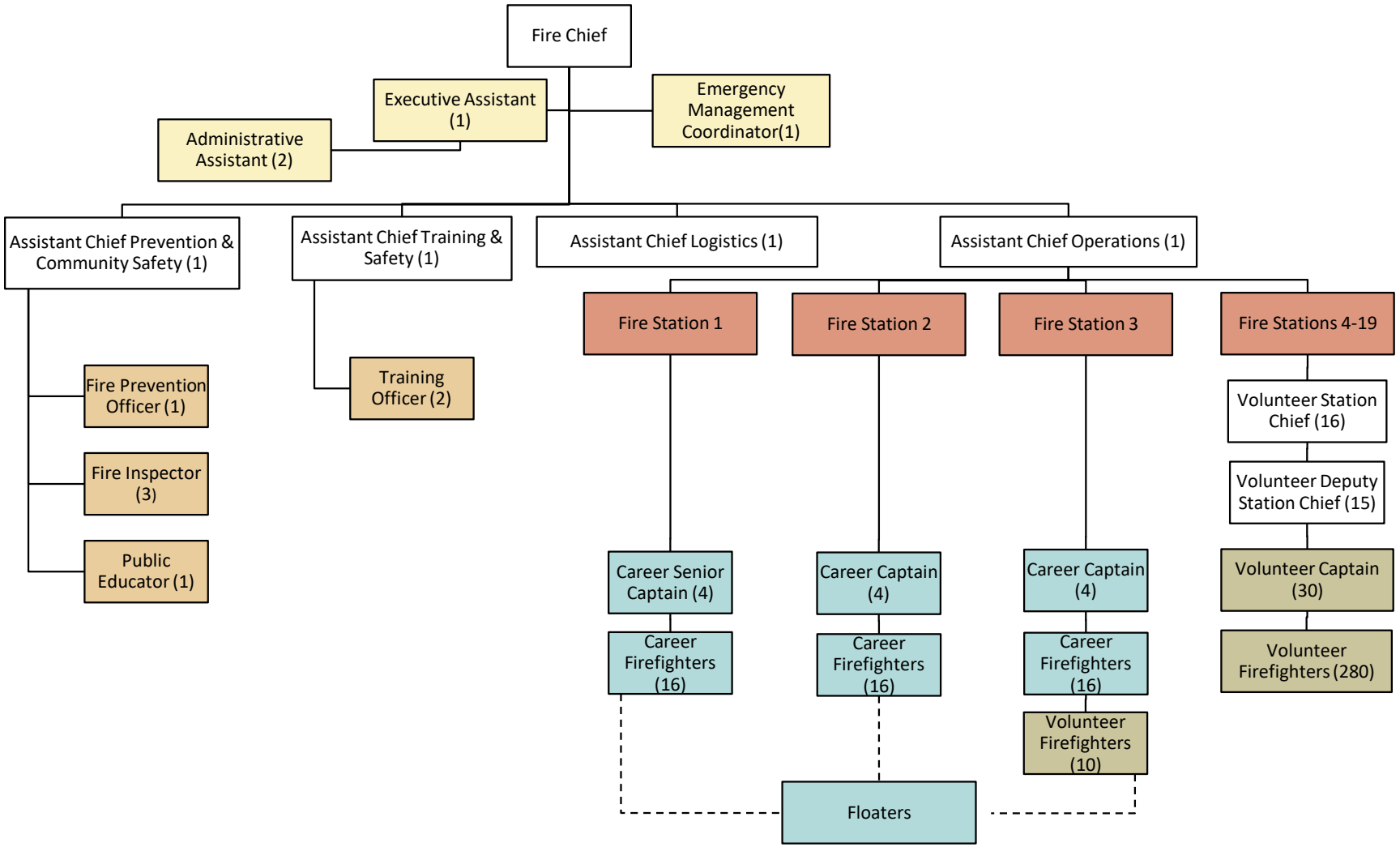


Table 7 illustrates the existing staff resource allocation of the full-time and volunteer staff resources of the CKFR. This table also differentiates those staff that are non-union full-time, career (full-time) members of Local 486 of the International Association of Firefighters and volunteer firefighters.

Table 7: Existing CKFR Staff Resource Allocation

Division	Role	Full-Time	Career Local 486	Volunteer
Administration	Fire Chief	1		
	Assistant Chiefs	4		
	Executive Assistant	1		
	Administrative Assistants	2		
	Emergency Management Coordinator	1		
Operations	Volunteer Station Chiefs			16
	Volunteer Deputy Station Chiefs			15
	Senior Captain		4	
	Captain		8	30
	Firefighters		48	290
	Firefighter Floaters		5	
Fire Prevention	Fire Prevention Officer		1	
Training	Fire Inspectors		3	
	Fire and Life Safety Educator		1	
	Training Officer		2	
Total		**9**	**72**	**351**[10]

This analysis confirms that the existing organizational structure of the CKFR is that of a 'composite' fire department that utilizes both full-time and volunteer staff resources. This analysis also highlights the large number of staff resources who are designated as 'Chief Officers'. This includes the 16 Volunteer Station Chiefs and 15 Volunteer Deputy

[10] This represents the total number of volunteer firefighters approved by Council. At the time of preparing this FMP the total number of volunteer firefighters was in transition as auxiliary firefighters were completing their training and being assigned to stations.

Station Chiefs. Research indicates that these positions were in place prior to amalgamation when these 'Chief Officers' would have been directly responsible for the fire departments in the smaller towns, villages and townships that ultimately formed the amalgamated municipality.

Analysis of the existing CKFR organizational structure also indicates a number of challenges related to the reporting structure within the department. For example, the current organizational structure indicates that the senior career captains, career captains and volunteer station chiefs all report to the Assistant Chief of Operations. This equates to a total of 28 staff reporting directly to this position. There are a wide range of organizational reporting structures within the public and private sectors. Research indicates that a typical organizational model would include a maximum of six to eight direct reports to any one position. In our view this represents current industry best practices for the supervision and direction for the span of control of one supervisory position such as an Assistant Chief.

The fire service relies on a 'rank structure' for the effective administration and operation of a fire department including the roles and responsibilities associated with 'Incident Command'. OHSA Firefighters Guidance Note 2-1 Incident Command" identifies that "an effective incident command system has a dramatic effect on efficiency, effectiveness of response and firefighter safety in all situations"[11]. The current organizational structure of the CKFR has a number of barriers related to having an effective incident command system such as the presence of such a large number of volunteer 'Chief Officer' ranks and an overall rank structure that supports an operationally effective 'fully integrated, composite fire service operating model'.

The analysis presented within this FMP includes a proposed new organizational model and supporting staff resource strategy.

5.2 CKFR Senior Management Team

The SMT, led by the Chief, is responsible for the daily oversight of all administration and operations of the department including all divisions, emergency management, budgeting, purchasing, labour relations, as well as developing and implementing

[11] OHSA Firefighters Guidance Note 2-1 Incident Command, Background.

strategies to sustain and enhance the level of fire protection services to the community. The existing SMT includes the Fire Chief and four Assistant Chiefs.

5.2.1 Fire Chief

The position of Fire Chief for the CKFR is defined with the existing Establishing and Regulating By-law No. 292-2004 that states "Fire Chief means the person appointed by Council to act as the head of the fire department"[12]. This by-law indicates that the Fire Chief reports directly to the General Manager, Community and Development Services.

In his/her position the Fire Chief is ultimately responsible for all operations and administration of the CKFR as described in By-law 292-2004, and as required by the FPPA reports directly to Council on all matters related to the delivery of fire protection services.

The existing job description for the Fire Chief states that the position will be responsible for providing leadership and managing a large and diverse department that provides a full range of services to municipal residents and visitors. The Fire Chief co-ordinates all aspects of service delivery, including fire prevention and protection, public education, rescue, training and professional development, emergency management, and emergency medical services. The Fire Chief is a visible partner in the community and workplace and a champion of community engagement, development and sustainability.

As per the existing job description the Fire Chief has the following general responsibilities:

- Directly supervises Assistant Chiefs who are responsible for service delivery in the areas of fire prevention and protection, public education, suppression, investigation, rescue, training, emergency management and emergency medical services.
- Responsible for CKFR employees including permanent and temporary non-union and association members under Chatham-Kent Professional Firefighters' Association collective agreement and volunteer fire staff.
- Supports the negotiation and implementation of collective agreement.

[12] Establishing and Regulating By-law No. 292-2004 1. (e).

- Coaches and teaches people at all levels throughout the organization.
- Ensures ongoing community safety through managing emergency and disaster situations.
- Oversees multi-million annual operating budget for the department.
- Ensures the fire department delivers on its mandate to preserve life, property and the environment, through the provision of fire suppression and rescue, fire prevention and education, emergency medical services, and emergency management to the citizens and businesses of Chatham-Kent.

At the time of preparing this FMP no formal appointment by-law was available for the current Fire Chief that would designate the incumbent as the Fire Chief.

5.2.2 Assistant Chiefs

The current job description for this position states that "Chatham-Kent Fire and Emergency Services incorporates an Assistant Chief model whereby Assistant Chiefs fulfill the role of a Deputy Chief and report directly to the Fire Chief"[13]. The CKFR currently has four Assistant Chiefs who oversee the following portfolios:

- Assistant Chief – Operations;
- Assistant Chief – Logistics;

[13] Community Development Fire and Emergency Services, Acting Assistant Chief, Fire.

- Assistant Chief – Prevention and Community Safety; and
- Assistant Chief – Training and Safety.

In addition to the required portfolio specific skills and competencies the four Assistant Chiefs have a number of common responsibilities that include:

- Supporting the Fire Chief in managing the day-to-day operations of the organization.
- Member of the department Senior Management Team who participates in critical strategic decisions including formulation of the Department's strategic and operational plan, policies, procedures, regulations, and program objectives.
- Representing the CKFR in the Emergency Operations Centre (EOC), the Department Operations Centre (DOC) or on site for the coordination of resources during disasters and large-scale incidents.
- Developing briefs for arbitration hearings, takes the lead in contract negotiations and other related labour relations matters as required.
- Oversees promotional protocols, champions change and diversity and facilitates professional development and training programs for all staff under their command.
- Completes annual performance reviews of senior staff and oversees the performance reviews for all personnel assigned to their portfolio.
- Develops operating guidelines, policies, procedures.
- Establishes continuous quality assurance/improvement processes to ensure optimal service delivery.
- Ensures that the CKFR customer service delivery meets or exceeds the standards expected by Council and the community.
- Fulfills the role of "On Call" Officer as identified in Standard Operating Guideline (SOG) #4-42 – Senior Officer On-Call Chief procedure on a rotational basis with the other Assistant Chiefs.
- Required to act as the Fire Chief from time to time.

5.2.2.1 Assistant Chief - Operations

This position is responsible for overseeing the Operations Division with a staff resource complement of over 400 staff including career and volunteer firefighters. In the current organizational structure 16 career Captains and 16 volunteer Station Chiefs report to this position.

This position has direct responsibility for overseeing the delivery of the department's fire suppression and emergency response services including structural and non-structural fire suppression, motor vehicle accidents, technical rescues, and medical aid.

5.2.2.2 Assistant Chief – Logistics

This position is responsible for overseeing the department's facilities, fleet and equipment needs including purchasing and maintenance. This position also coordinates the department's communication needs including 'emergency call taking and fire dispatching' that is provided by the Chatham-Kent Police Services.

This position also facilitates a key role in a special project leadership such as the transition to NG-911, the recently completed Community Risk Assessment process and this fire master planning process.

5.2.2.3 Assistant Chief – Prevention and Community Safety

This position is responsible for overseeing the Fire Prevention and Community Safety Division. This includes the preparation and delivery of the department's fire prevention and public education programs and services. The position facilitates a key role in the process to identify the communities fire related risks and to develop and implement risk reduction strategies.

5.2.2.4 Assistant Chief – Training and Safety

This position is responsible for overseeing the department's current training programs and firefighter safety initiatives. This position facilitates a key role in developing and delivering comprehensive training to all firefighters (career and volunteer) to comply with the applicable legislation.

5.2.3 CKFR Senior Management Team Summary

The research and stakeholder consultation to develop this FMP indicates that the existing SMT has worked well to support the department's evolution resulting from the amalgamation process. As indicated in the analysis of the departments existing organizational structure in our view the CKFR has a number of barriers related to having an effective rank structure to support the proposed 'fully integrated, composite fire service operating model'. In our view the majority of these existing barriers are related

to the administration and management of the Operations Division both strategically and day-to-day.

In our view the current SMT is working at its maximum workload capacity to oversee and manage the day-to-day needs of a large 'composite' municipal fire service. Within this current model there is minimal time available to focus on strategic initiatives and to focus on proactively identifying and preparing for future challenges and the evolution of the fire services. In our view the current administrative and operational challenges within the Operations Division are not sustainable utilizing this current SMT organizational structure.

The analysis presented within this FMP includes a proposed new organizational model and supporting staff resource strategy. Where these proposed initiatives impact the department's existing SMT, consideration should be given to developing or updated defined job descriptions and appointment by-laws for all positions within the SMT.

5.3 CKFR Administrative and Technical Support

The administrative support services for the CKFR are currently provided by an Executive Assistant and two Administrative Assistants (non-union). Technical support for Emergency Management is provided by the Emergency Management Coordinator (non-union).

5.3.1 Executive Assistant

This position provides administrative support to the Fire Chief and four Assistant Chiefs and oversees the work of two Administrative Assistants. The following is an overview of the roles and responsibilities of this position.

- Provide administrative assistance to the SMT.
- Create/author and/or edit reports, correspondence, e-mails, policies, and faxes on behalf of the Fire Chief; review e-mail messages sent to the Fire Chief and when appropriate, respond or assign to the appropriate individuals; proofread all departmental reports to Council and/or EMT, boards, commissions, committees, suggest changes where necessary, and maintain a record of these reports.

- Prepare agendas, reserve, and prepare facilities, attend and participate in departmental management meetings, Executive Assistants committee meetings and other meetings as required, as well as maintain accurate minutes.
- Participate in special projects as assigned by the Fire Chief.
- Monitor staff attendance and entitlements and enter information into HRIS software program, including vacation time, lieu time, sick time, overtime, etc. and ensure department information is complete and accurate.
- Manage web site pages.
- Assist in the preparation and monitoring of the department's annual budget and quarterly variance reports.
- Organize and track the income and expenditures of the department and perform accounting functions including the coding of invoices.
- Create, track, and maintain all records for personnel and union related issues, including sensitive human resources/labour management correspondence and documentation concerning discipline or dismissal, grievances, negotiations, arbitration awards, etc.
- Ensure all information aspects of the Chatham-Kent Professional Firefighters' Association contract are met; receive grievances, attend grievance meetings and arbitrations, attend contract negotiation meetings, and draw up collective agreements, when directed to do so.
- Ensure mandatory reports and enquiries are completed and submitted to the Office of the Fire Marshal within the required timelines.
- Liaise with the Office of the Fire Marshal to order Provincial and Federal Service Awards and schedule Investiture Ceremony for entire department (both full-time unionized and volunteer divisions).

5.3.2 Administrative Assistants

The Administrative Assistants report directly to the Executive Assistant and are responsible to perform the administrative tasks required to support the SMT and senior officers of the department. The following is an overview of the roles and responsibilities of this position.

- Provide reception duties for Fire and Emergency Services administration.
- Prepare purchase orders.
- Prepare and code invoices; code and maintain visa statements.

- Submit requests for service issues for Fire and Emergency Services.
- Enter full-time unionized and volunteer firefighter payroll information into JD Edwards.
- Manage and administer electronic records management system (FirePro2). Oversee all personnel records, training records, incident reports and equipment inventory; provide technical support to all staff.
- Prepare all invoicing for full cost recovery according to municipal by-law and Environmental Protection Act.
- Manage Office of the Fire Marshal firefighter curriculum and training database for all fire personnel.
- Manage annual clothing allotment for all 19 stations, ensuring contractual obligations are met.
- Monitor and record vacation/ lieu entitlements and sick leave for all unionized staff.
- Assist with firefighter recruitment, including all promotional examinations and correspondence.
- Research and analyze statistics and reports related to Fire Services, Emergency Management and EMS.
- Create presentations and/or reports based on the analysis of the research conducted.
- Liaise with external contacts, Assistant Chiefs as necessary to gather information and explain research, presentations, etc.

5.3.3 Emergency Management Coordinator

The Emergency Management Coordinator (EMC) reports directly to the Fire Chief. This role assists with ensuring that the Municipality is continuously prepared, ready and capable of mitigating an emergency, should one occur. The EMC consults with internal and external stakeholders to facilitate the creation, implementation, maintenance, evaluation, and review of community emergency management program elements for the Municipality. The following is an overview of the roles and responsibilities of this position.

- Reviews, develops and maintains current Hazard Identification and Risk Assessment (HIRA).

- Develops prevention and mitigation plans/strategies to eliminate or minimize the identified risks and critical infrastructure vulnerabilities.
- Provides, and participates in, annual training for the Community Control Group (CCG) and support the design, implementation, participation, evaluation, debriefing, and documentation of annual emergency planning exercises.
- Liaises and aids in the development, coordination, and communication of plans to facilitate cooperation and/or mutual aid with other private, municipal, provincial, federal, and international agencies.
- Creates, strengthens, and formalizes supply chain management processes by building and maintaining relationships with suppliers and service delivery providers prior to an emergency occurrence, while ensuring that critical supplies and services are available to the Municipality of Chatham-Kent during an emergency event thus guaranteeing adequate business continuity with minimal or no disruption of service delivery to members of the public.
- Attends emergencies, as requested.
- Performs the role of Planning Officer-Logistical Support or Emergency Information Officer, when required.
- Develops Public Education Programming and provides training to CCG staff.
- Required to assist with the mitigation of emergencies, and formally document emergency measures performed.
- Coordinates with stakeholders to ensure currency of Pandemic plans and other Emergency Response plan guidance documents, ensures the Municipality of Chatham-Kent remains current and completes annual legislated documentation.
- Acts as a liaison with all divisions within the Municipality of Chatham-Kent that are related to training, development, and emergency planning.
- Supports Chatham-Kent Fire and Rescue with project management and overall support coverage.

5.3.4 Administrative and Technical Support Summary

The research and analysis to prepare this FMP indicates an increasing amount of administrative support required to sustain the current reporting requirements of the CKFR in many areas. In these same areas, recent legislative changes require more due diligence, records management, and reporting on behalf of the CKFR to maintain

compliance. Examples of these areas include firefighter training programs and record keeping, fire inspections and issuance of fire code charges and prosecution, and public reporting in general; all of which are creating greater administrative workload for fire departments throughout the province.

In our experience the provision of sufficient administrative support resources will provide technical staff, such as Fire Inspectors, Public Educators and Training Officers, more time to be proactive in their core responsibilities. In our view, there is an identified need for the CKFR to request additional administrative support. This request is formalized within the proposed new organizational model and supporting staff resource strategy presented within this FMP.

5.4 CKFR Mission, Vision and Core Values

PFSG 03-02-13 “Master Planning Process for Fire Protection” identifies the importance of a mission statement for a fire department. A mission statement should clearly communicate the primary goal that all members of the department support and are committed to achieving. Effective mission statements identify what an organization does, who it does it for, and how it does it. Mission statements are intended to be short, clear, and powerful in defining an organization's purpose and primary objectives. They are intended to express why the organization exists to both internal and external stakeholders.

Often, fire departments will also have a vision statement, in addition to a mission statement. A vision statement should identify a vision for the future that all individuals within the department can work towards. Vision statements can often remain the same while mission statements can evolve as the organization changes.

In addition to mission and vision statements fire department will often identify the ‘core values’ that will confirm the department’s core principals and inform staff of the behaviours expected of the organization and show their citizens what is important to the fire department.

Research into preparing this FMP indicates that the existing CKFR mission statement is out of date and relatively unused by the department. Subject to Council’s endorsement of the proposed ‘Strategic Priorities’ presented within this FMP the CKFR will have a unique opportunity to develop a strategy to develop and implement a clearly defined

mission statement, vision statement and core values to support the proposed transition to a fully integrated, composite fire service operating model.

Recommendation 2: That consideration be given to implementing a strategy to develop a clearly defined mission statement, vision statement and core values to support the proposed transition of the Chatham-Kent Fire and Rescue to a fully integrated, composite fire service operating model.

5.5 Municipal By-laws

The Municipal Act and the Fire Prevention and Protection Act permit the council of a municipality to enact by-laws to operate a municipality, including the fire department. In addition to meeting this legislative responsibility, by-laws provide the community with important information regarding the level of service that a municipality intends to provide. By-laws also provide municipal staff with the authorization to provide these services, as well as the responsibility to achieve the prescribed service level. By-laws common to a municipal fire service include the establishing and regulating by-law and open-air burning by-law.

5.5.1 Establishing and Regulating By-Law

An Establishing and Regulating By-law (E&R By-law) for a fire department should provide clear and accurate policy direction reflecting how a municipal council intends fire protection services to function and operate. PFSG 01-03-12 “Sample Establishing and Regulating By-law” prepared by the OFM provides a description of the primary issues to be addressed, as well as a template for developing an E&R By-law. The primary areas identified by the OFM to be included in an E&R By-law include:

- General functions and services to be provided.
- The goals and objectives of the department.
- General responsibilities of department members.
- Method of appointment to the department.
- Method of regulating the conduct of members.
- Procedures for termination from the department.
- Authority to proceed beyond established response areas.

Authority to effect necessary department operations.

The current Establishing and Regulating By-law No. 292-2004 establishing the CKFR was approved by Council on November 15, 2004. Our research indicates that this by-law has not been updated in nearly twenty-years and does not represent an accurate representation of the current organizational structure and services provided by the CKFR.

This FMP includes recommendations for Council's consideration in revising the current delivery of fire protection services in response to the new Ontario regulations related to the development of a CRA and mandatory firefighter certification. Subject to Council's consideration and approval of the proposed 'Strategic Priorities', revised organizational structure and strategies to support the transition of the Chatham-Kent Fire and Rescue into a fully integrated, composite fire service operating model there will be a need to update the current E&R By-law.

Recommendation 3: That consideration be given to updating the current Establishing and Regulating By-law No. 292-2004.

5.5.2 Rates and Fees By-law

By-Law 39-2021 enables the municipality to recover costs for the provision of various departmental services. Recoverable rates and fees used by the fire department are reviewed and updated annually. Our review of the CKFR – 2023 Fee Schedule indicates that the department receives fees for a wide range of services. In our view the current annual fee review process and 2023 fee schedule reflect an efficient and effective cost recovery process for services provide by the CKFR. Examples of the services included in the 2023 Fee Schedule include:

- Property files searches
- Incident Reports;
- Fire Investigation Reports;
- Fireworks inspections and permits;
- Fire Inspections;
- Occupancy permits;
- Fire Safety Plans; and
- Fire extinguisher training.

5.5.3 Open Air Burning By-Law

By-law 107-2016 details the requirements for setting open-air fires and the times when open-air fires may be set. Residents of Chatham-Kent are required to obtain a permit prior to starting an open-air fire. The Chief Fire Official has the authority to issue a burning permit if the conditions set out in the by-law are met, as well as refuse, cancel or suspend the permit at any given time if they are not met.

Residents of Chatham-Kent can apply for an Open-Air Burn Permit, or Recreational Campfire Permit through the CKFR website. Additional information about open air burning can also be found on the CKFR website.

5.6 Agreements

In Ontario, the Municipal 2001, S.O. 2001 and the FPPA provide the authority for municipalities to utilize multiple forms of agreements to provide fire protection services, and purchase fire protection services. Examples of these include mutual aid, automatic aid, fire protection and collective agreements. The following sections present an overview of the current agreements the CKFR has in place.

5.6.1 Mutual Aid Agreement

In Ontario mutual aid agreements are predetermined plans that allow a participating fire department to request assistance from a neighbouring fire department. PFSG 04-05-12 Mutual Aid, provided by the OFM identifies the information required to develop and approve these agreements.

There are two main scenarios when mutual aid agreements are activated:

- A fire department may ask for mutual aid assistance when it is at the scene or has information that immediate assistance is required; and
- Fire departments may immediately request a simultaneous response from a participating fire department where distance and/or conditions dictate.

Mutual Aid Plans and the Regional Fire Coordinators also provide the point of access for municipalities to request assistance from the Provincial Emergency Operations Centre (PEOC) in instances such as responding to hazardous materials incidents including chemical, radiological, or nuclear (CBRN) incidents.

Assistance under a mutual aid agreement is reciprocal and there are no fees involved for response. Mutual aid agreements are not intended to be used for day-to- day response, but rather for extraordinary emergencies which exhaust or exceed the response capabilities of a fire department.

Chatham-Kent is a unique single-tier municipality, formed by the amalgamation of 23 former municipalities. It is the largest municipality by area (2,458 square kilometres) in Ontario, served by 19 CKFR fire stations, with associated firefighters, apparatus and equipment. A large section of the municipal boundary (approximately 88 kilometres) is Lake Erie shoreline, and another 24 kilometer section is Lake St. Clair shoreline. Where Chatham-Kent shares a border with another municipality the availability of fire services are limited and geographically distant from much of Chatham-Kent's populated areas. The CKFR does not have a formal Mutual Aid Agreement but has developed Fire Protection Agreements (e.g. Automatic Aid Agreements) with several neighbouring communities such as the Town of Lakeshore, Municipality of Leamington, and Township of Dawn-Euphemia, to provide fire service response into these areas. Each of these Fire Protection Agreements includes a 'fee for service' paid by the neighbouring communities to Chatham-Kent, and they are not reciprocal. The typical mutual aid process that is successful across much of Southern Ontario, where lower tier municipalities within an upper tier organization form a mutual aid agreement, does not translate well for the single-tier Municipality of Chatham-Kent its fire rescue services. When additional resources are required to respond to a significant event or simultaneous incidents within Chatham-Kent, CKFR can draw on its 19 existing stations and associated resources. The department currently practices an automatic dispatch of two stations to respond to a pre-programmed list of 'elevated incidents,' including structure fires, rescue-extrication incidents, water emergencies and other miscellaneous call types identified by CKFR. Beyond this, the Incident Commander can request additional resources to be dispatched, when required.

5.6.2 Automatic Aid Agreements

In contrast to mutual aid agreements, automatic aid agreements are programs designed to provide and/or receive assistance from the closest available resource, regardless of municipal boundaries, on a day-to-day basis. PFSG 04-04-12 Automatic Aid describes the concept of these types of agreements.

The advantage of implementing an automatic aid program is that the person/persons experiencing the emergency receive fire services from the closest available provider (municipality). Automatic aid allows for the provision of supplying seamless integrated fire suppression services through the elimination of traditional municipal service boundaries. Automatic aid agreements provide benefits such as:

- An enhancement of the level of public safety;
- A reduction of the critical element of time between the commencement of a fire and the application of an extinguishing agent to the fire by dispatching the closest available fire suppression resources;
- The reduction of life, property, and environmental losses; and
- The improvement of public and firefighter safety.

Automatic Aid Agreements are typically created between two neighbouring communities to reduce initial response times by deploying firefighters from the closest fire station, regardless of municipal boundaries; to deploy additional firefighters to enhance the depth of response capabilities of the requesting fire department; or alternatively, to request a specific type of apparatus such as a tanker or an aerial apparatus to support the response of the requesting fire department.

The Municipality of Chatham-Kent has a number of Automatic Aid Agreements (Fire Protection Agreements) with neighbouring communities to provide fire protection services. Each of these agreements define the specific fire protection services to be provided by the CKFR, the fees to be reimbursed and the respective responsibilities of each party named in the agreement.

Our review of the following agreements indicates that they were all originally agreed to during 2003 to 2005. They all have an automatic renewal process and based on our research they all remain in effect at the time of preparing this FMP.

- Fire Protection Agreement – Delaware Nation;
- Fire Protection Agreement – Township of Dawn-Euphemia;
- Fire Protection Agreement – The Walpole Island First Nation;
- Fire Protection Agreement – Municipality of Leamington; and
- Fire Protection Agreement – Village of Newbury.

Our research could not identify if there is a current process in place to review these types of agreements on a regular basis. In our experiences changes can occur in either of the partner municipality service delivery needs that could impact these agreements. Our experience also shows that the fees associated with delivering these services can also change annually as a result of increased operating costs. Subject to the adoption of this FMP and the approval of an implementation plan there may be a need to revise the existing fire protection agreements, consideration should also be given to implementing a regular process to review and update these agreements as required.

5.6.3 Hazardous Materials Response Agreement

On June 1, 2022, the Municipality of Chatham-Kent and the City of Windsor signed a Hazardous Materials Response Agreement that includes Windsor deploying a Hazardous Materials Response Team when requested by Chatham-Kent.

This agreement identifies the level of services to be provide, fees and disbursements, indemnity and the term and termination process for this agreement. This agreement includes the deployment of a minimum of two NFPA 1072-Technician Level and two NFPA 1072-Operations Level certified firefighters accompanied by a Chief Officer.

This agreement provides Chatham-Kent with access to fire suppression staff with the highest level of the NFPA-1072 training and certification to support the CKFR in

responding and managing hazardous material incidents. In our view this agreement is an effective strategy to supplement the current skills, competencies and emergency response capabilities of the CKFR.

5.6.4 Collective Agreement

Within the FPPA, Part IX – Firefighters: Employment and Labour Relations sets out the applicable definitions and legislation relating to the use of career (full-time) firefighters. This includes the definition of a career (full-time) firefighter that indicates "means a person regularly employed on a salary basis in a fire department and assigned to fire protection services and includes technicians but does not include a volunteer firefighter"[14] . The Municipality of Chatham-Kent and the Chatham-Kent Professional Firefighters Association are parties to a 'Collective Agreement' as authorized by the FPPA.

It is important to note that the recommendations presented within this proposed FMP may have an impact on the interpretation and/or intent of the current Collective Agreement, other applicable Memorandums of Understanding, or Supplementary Arbitration Awards.

As indicated in PFSG 03-02-13 Master Planning Process for Fire Protection Services one of the 'guiding principles' to be considered within the fire master process includes that "The content of existing collective agreements will be respected, and the collective bargaining process will be recognized as the appropriate channel for resolving labour relations issues under collective agreements and the Fire Protection and Prevention Act, 1997"[15].

5.7 Standard Operating Procedures, and Guidelines

The CKFR has developed a comprehensive list of Standard Operating Procedures (SOPs) and Operating Guidelines (OGs). The primary difference between these documents is that SOPs provide 'mandatory' direction to staff whereas OGs provide a 'guideline' for

[14] Fire Protection and Prevention Act, 1997, Part IX Firefighters: Employment and Labour Relations, Definitions, 41. (1).

[15] Public Fire Safety Guideline 03-02-13 Master Planning Process for Fire Protection Services.

staff to follow in completing a specific task. All SOPs are also referenced as 'policy' documents whereas only some of the OG's include 'policy' statements.

PFSG 04-69-13 Co-ordination, Development, Approval, and Distribution of Standard Operating Guidelines for Various Disciplines, describes a guideline as "a statement written to guide the performance or behaviour of departmental staff, whether functioning alone or in groups." The intent of Operating Guidelines can be summarized as to:

- Enhance safety.
- Increase individual and team effectiveness.
- Improve training efficiency.
- Improve orientation for entry-level staff.
- Improve risk management practices.
- Prevent/avoid litigation.
- Create objective post-incident evaluations.
- Permit flexibility in decision making.

OG -Introduction dated January 2006 describes the purpose of these guidelines as "To establish policies and guidelines in order to provide consistency in the manner by which information is transferred to all levels of the Chatham-Kent Fire Department"[16]. This guideline also states that the scope of this specific guideline is that "These guidelines are to be followed by all members of the Chatham-Kent Fire Department. Authority to deviate from these guidelines' rests solely with the commanding officer's discretion"[17].

Our review indicates that the CKFR has a comprehensive package of SOPs and OGs. However, many of these documents have not been updated in some time and may not comply with changes such as new regulations and revised Section 21-Firefighter Guidance Notes. Consideration should be given to adopting a regular process for review and updating these documents.

[16] CKFR OG-Introduction, Purpose, dated January 2006.

[17] CKFR OG-Introduction, Scope, dated January 2006.

5.8 Annual Report

The OFMEM's "Optimizing Public Fire Safety" model recognizes the importance of ongoing monitoring, evaluation, and revisions to the fire protection services approved by Council. Fire services across the province have utilized annual reports to Council as a tool to provide a high degree of accountability and transparency on behalf of the Fire Chief in reporting to the community and Council on the level of fire protection services provided. This regular reporting process is also an ideal opportunity to report on key performance benchmarks, as well as the mandatory requirements of O. Reg. 378/18 to review and update the CRA.

In our view the implementation of a process to provide Council and the community with information related to the delivery of fire protection services including statistical data, performance objectives, evolving trends and when applicable updates to the CRA would represent current industry best practices.

Recommendation 4: That consideration be given to developing and implementing an annual reporting process to Council and the community.

5.9 Post-Traumatic Stress Disorder Prevention Plan

First responders including firefighters are at an increased risk to suffer from Post-Traumatic Stress Disorders (PTSD) due to the nature of their work. A Ministerial Order under the Ministry of Labour Act directed employers to provide the Minister with their respective PTSD Plans in support of the Supporting Ontario's First Responder Act, which amended the Workplace Safety and Insurance Act (WSIA), 1997. Under the Supporting Ontario's First Responders Act, there is a presumption that a diagnosis of PTSD for certain workers is work-related. Details relating to the Plan are to be shared within the workplace in an effort to prevent PTSD. As an employer of workers covered by the Supporting Ontario's First Responders Act, the Municipality of Chatham-Kent is required to have a Post-Traumatic Stress Disorder Prevention Plan.

The CKFR has developed a 'Draft' PTSD Prevention Plan that was completed on March 27, 2023. This draft plan states that "This is a living document which will be

updated as required and/or as our organization advances our PTSD prevention strategy"[18]. The specific objectives of this plan include:

- Outline the current state of CKFR as it relates to PTSD;
- Define the legal requirements;
- Explain how to identify and respond to PTSD events;
- Establish the roles and responsibilities related to PTSD within the organization;
- Establish policies and procedures to support PTSD prevention in the organization;
- State crisis intervention expectations and screening protocols;
- Outline organizations intervention practices and procedures so that all supervisors and managers understand the available intervention options;
- Review the duty to accommodate;
- Provide examples of accommodations that may be utilized to support recovery and return to work; and
- Overview of PTSD, Risk Factors, Signs and Symptoms.

As the CKFR moves towards finalizing this plan, including final approval, the CKFR may want to consider developing a partnership with agencies that provide clinical support and/or mental health resources (e.g. group-based trauma programs, animal assisted therapy, resiliency training and research to individuals and families affected by operational stress injuries). This strategy would further support the department's mental health program.

5.10 Records Management/Information Technology

An important component of fire department administration functions is overseeing records management and reporting. Records management plays a role in every division of a department for a variety of reasons including, but not limited to, operations emergency response, firefighter training records, as well as measuring the effectiveness of fire prevention and public education programs.

Research indicates that the CKFR recently transitioned their records management software from FirePro to Emergency Reporting. The stakeholder consultation process

[18] Chatham-Kent Fire and Rescue, Post-Traumatic Stress Plan, March 27, 2023, Introduction.

identified that the transition process was successful, and that staff are still adapting to the use of this new software.

PFSG 04-60-12 Records Management provides a comprehensive overview of an effective and efficient records management program that includes the appropriate use and protocol, by division, of the records management systems in place; record retention schedules; standards for record quality; protocols for record security and integrity of hard-copy and electronic records; and outline other applicable codes, standards or industry best practices that apply (e.g., Municipal Act, 2001, Municipal Freedom of Information and Protection of Privacy Act, 1990).

5.11 Administration Division Summary

The fire service in Ontario has been impacted by unprecedented change over the past decade. This includes the introduction of new legislation related to managing fire-related risks, firefighter certification, presumptive legislation impacting the health of all firefighters and an increasing need to prioritize due diligence on behalf of the municipality. In addition to these changes the CKFR remains in a state of transition stemming from amalgamation.

The research and stakeholder consultation process to inform this FMP indicates a high degree of confidence and respect for the current SMT. However, there are numerous indicators suggesting that the increasing administrative and managerial workload demands are challenging the capacity of the current team. In part, the current organizational structure of the CKFR including the administration and operational oversight of the 'Operations Division' is a core challenge impacting the SMT on a daily basis.

The analysis of this division also identifies a need to consider additional administrative support within the department. This need is being driven by the increasing amount of reporting, records management requirements and the implementation of a strategy to ensure the 'right people are doing the right tasks'. For example, ensuring that Fire Inspectors and Training Officers are focused on the highly technical areas of their roles and responsibilities rather than administrative tasks than can be delegated to others.

The following is a summary of the recommendations for the Administration Division.

1. That the Council of the Municipality of Chatham-Kent endorse the proposed 'Strategic Priorities' presented within the proposed Fire Master Plan to inform their decision-making process with respect to the delivery of fire protection services over the next 10-year community planning horizon.
2. That consideration be given to implementing a strategy to develop a clearly defined mission statement, vision statement and core values to support the proposed transition of the Chatham-Kent Fire and Rescue to a fully integrated, composite fire service operating model.
3. That consideration be given to updating the current Establishing and Regulating By-law No. 292-2004.
4. That consideration be given to developing and implementing an annual reporting process to Council and the community.

6.0 Prevention and Community Safety Division

The new Ontario Regulation 378/18: Community Risk Assessments empowers a municipality with the opportunity to identify and target community fire risk mitigation and risk reduction strategies. Examples of fire risk reduction strategies may include enhancing a fire inspection program within a specific building occupancy classification; developing a public education program for an identified at-risk demographic within the community, such as seniors; or introducing local requirements for residential sprinklers.

Fire-related risk reduction and risk mitigation strategies recognize that there are proactive alternatives to supplementing fire suppression capability within a community. The proposed 'strategic priorities' presented within this FMP are intended to support the development and implementation of strategies that are informed by the findings of the CRA, and optimize the first two lines of defense, including the delivery of public education and fire prevention programs, and the use of fire safety standards and fire code enforcement.

At a minimum the FPPA states that a municipality should "Establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention"[19] . The analysis within this section has been informed by our knowledge of the current applicable legislation, including the new Ontario Regulation 378/18: Community Risk Assessments, the PFSGs developed by the OFM, and the applicable NFPA standards.

6.1 Fire Prevention and Public Education Industry Best Practices

The fire prevention and public education programming provided by the CKFR should be guided by the most current legislative requirements and industry best practices. Primarily, these include the mandatory requirements of the FPPA including the new O. Reg. 378/18 – Community Risk Assessment and the NFPA 1730 Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan

[19] Fire Protection and Prevention Act, 1997 Part II, Section 2. (1) (a).

Review, Investigation, and Public Education Operations and the NFPA Fire and Life Safety Ecosystem.

6.1.1 NFPA 1730: Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations (2019 Edition) (NFPA 1730)

NFPA 1730: Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations was initially released in 2016, and was recently updated in 2019. This standard establishes criteria through six chapters:

1. Organization;
2. Community Risk Assessment;
3. Fire Prevention Inspection and Code Enforcement Activities in Existing Occupancies;
4. Plan Review;
5. Investigations; and
6. Public Education Programs.

The focus of NFPA 1730 is to ensure that a Fire Prevention and Public Education Division has a Community Risk Reduction Plan (CRRP) in place and that it is based on the local "needs and circumstances" established through Community Risk Assessment. A CRRP is then used to establish resources and programs that are designed to mitigate and/or reduce identified fire risk. For example, NFPA 1730 identifies recommended fire inspection frequency cycle which could be refined based on the local context. The supporting appendices of NFPA 1730 provide exercises to identify staffing resource needs that consider required tasks and time demands.

Where applicable, this FMP will present risk reduction and risk mitigation strategies to optimize the use of the 'first two lines of defense' in response to the identified 'key findings' and 'identified risks' included in the CRA to enhance the existing fire prevention and public education programs and services provided by the CKFR.

6.1.2 NFPA Fire and Life Safety Ecosystem

The NFPA Fire and Life Safety Ecosystem is a framework of eight elements that work in conjunction with one another with the collective goal of risk reduction. Together, they

promote the prevention of fires and other hazard-related loss, reducing injuries and fatalities. The eight components that comprise this framework include:

- Government responsibility;
- Development and use of current codes;
- Referenced standards;
- Investment in safety;
- Skilled workforce;
- Code compliance;
- Preparedness and emergency response; and
- Informed public.

This ecosystem is premised on the notion that the cause of all life safety incidents can be traced back to the breakdown of one or more of these components. The Fire and Life Safety Ecosystem recognizes that fire prevention is multifaceted and there are various key components that need to work in tandem in order to cultivate an environment and culture of fire safety. This FMP supports a multifaceted approach to fire prevention and, where applicable, will present strategies to enhance existing fire prevention and public education programs and services provided by the CKFR.

6.1.3 Proposed Community Risk Reduction Plan

The OFM's TG-02-2019 was informed by the NFPA 1300 – Standard on Community Risk Assessment and Community Risk Reduction Plan Development, and the Vision 20/20 Community Risk Reduction Plan. In our view these two documents represent current industry best practices within the fire in North America.

CRRP focus on a holistic approach to mitigating or preventing risk within a jurisdiction, utilizing the five E's namely: education, enforcement, engineering, economic incentive, and emergency response. It also involves strategies that ensure the right resources are being used be it a targeted public education campaign for seniors or dispatching appropriate personnel and equipment to a medical call. This approach enables municipalities to provide fire protection services in an efficient and effective manner.

In our view the Municipality and the CKFR would benefit from developing a CRRP as a component of its proactive response fire-related risk prevention and mitigation. A CRRP

would build on the successes the CKFR and the Municipality have already achieved, including:

- Existing partnerships with local agencies and organizations;
- Existing smoke and carbon monoxide alarm programing; and
- Proactive fire prevention and public education model.

The targeted stakeholder interviews revealed a baseline of positive existing relationships between CKFR and community stakeholders. There was also a strong willingness from stakeholders to work more proactively with the CKFR to identify, design, and implement enhanced community risk reduction strategies. In developing a proposed CRRP, stakeholder input and buy-in will be an important part of the process to design and implement the plan.

Recommendation 5: That consideration be given to developing a Community Risk Reduction Plan as presented within the proposed Fire Master Plan.

6.2 Existing Prevention and Community Safety Staff Resources

The Assistant Chief – Prevention and Community Safety is responsible for overseeing the existing staff resources assigned to this division, and the delivery of the departments current fire prevention and public education services and programs. The staff resources assigned to this division include the Fire Prevention Officer (FPO), three Fire Inspectors (FI) and one Public Educator. The internal stakeholder consultation process identified that in the short-term this division is going to be impacted by staff retirements. As a result, there will be a period of transition as replacement staff are recruited and hired.

6.2.1 Fire Prevention Officer

The FPO reports directly to the Assistant Chief – Prevention and Community Safety. The FPO's job description states that the position's responsibilities involve the safe and efficient provision and support of fire prevention programs, the delivery of fire prevention programs, fire investigation, and public fire safety education functions. The FPO role is a specialized technical and investigative position with enforcement accountabilities related to municipal, provincial, and federal fire prevention bylaws, legislation, regulation, and codes.

This includes conducting fire safety inspections, fire investigations, and supporting other staff assigned to this division regarding the fire prevention and public education goals and objectives of the department. This position is responsible for ensuring compliance with the FPPA, Municipality of Chatham Kent by-laws and other applicable legislation, including taking necessary enforcement action as required. A summary of the FPO's roles and responsibilities include:

- Conducts, assigns, and monitors the workflow within the division.
- Enforces, and causes to be enforced, the Ontario Fire Code and other applicable provincial codes and any authorized municipal by-laws.
- Prepares prosecution briefs, attends Provincial Offenses Court, and testifies in the prosecution of offences under the Fire Protection and Prevention Act, 1997.
- Coordinates, approves, and observes fire evacuation drills.
- Performs public relations, liaises, and collaborates with other Municipal divisions, partner agencies and community organizations to achieve objectives related to prevention activities.
- Responds to fire prevention inquiries and requests from the public.
- Conducts, assigns, and monitors fire investigations, documents fire scenes and reports on origin, cause, and circumstances.
- Provides technical support and other assistance to fire department personnel to facilitate their follow-up and resolution of fire and life safety matters.
- Performs administration duties, conducts research, compiles data, and prepares reports.
- Researches code and companion documents to maintain proficiency.
- Prepares and maintain accurate records, reports, and correspondence as it pertains to assigned fire prevention activities.
- Supervises staff who conduct routine inspections of buildings and properties as per department policies, and within delegated authority.
- Fulfils human resources accountabilities, including conducting performance evaluations.
- Conducts training for the department and outside agencies in fire prevention subjects and practices.
- Provides input into plans examinations in accordance with fire and building codes.

- Provides input into short, medium, and long term planning of prevention activities; make recommendations as needed.
- Adopts and incorporates changes due to amendments in bylaws, legislation, or regulations in policies, procedures, and rules.

6.2.2 Fire Inspectors

The current staff resources within this division include three Fire Inspectors (FI). These staff report directly to the Assistant Chief – Prevention and Community Safety. A recent job description for this position was provided for review as part of this fire master planning process. A summary of the roles and responsibilities of this position include:

- Conducts routine inspections of buildings and properties as per department policies, and within delegated authority.
- Provides Ontario Fire Code enforcement follow-up; writes orders and makes recommendations.
- Enforces the Ontario Fire Code under the provisions of Parts 1 and 3 of the Ontario Provincial Offenses Act.
- Develops Crown Briefs, gathers information, services summons and attends at Court when required.
- Adopts and incorporates changes in inspections due to amendments in bylaws, legislation, or regulations in policies, procedures, and rules.
- Manages information and records according to municipal and department records management policies.
- Prepares and maintain accurate records, reports, and correspondence as it pertains to assigned fire prevention activities.
- Meets and deals effectively with property owners and other contacts in the community.
- Provides public fire safety education services when required.
- Responds to fire prevention inquiries and requests from the public.
- Maintain relationships and networks related to fire prevention and public education organizations.

6.2.3 Public Educator

The current staff resources within this division also include one Public Educator (PE) who reports directly to the Assistant Chief – Prevention and Community Safety. A recent job description for this position states that "The Public Educator is responsible for the research and development, oversight, and facilitation of all public education programs". A summary of the roles and responsibilities of this position include:

- Provide overall coordination of the public safety education program of the CKFR.
- Develop program curriculum in partnership with local stakeholders.
- Schedule activities for the Public Educator.
- Maintain records.
- Partner with community groups, agencies, and other organizations.
- Participate in community safety committees and organizations.
- Identify trends related to public safety education.
- Develop communications/marketing strategy for Juvenile fire setter intervention and dealing with other safety related mental health issues such as hoarding:
- Develop Operating Guidelines and associated department policies with all public education activities.
- Assist with fire evacuation drills, community special events, or career fairs as required.
- Conduct research, collect and analyze data, and produce fire safety statistical reports.
- Develop schedules and maintain records in all aspects of public education service delivery.
- Maintaining and providing content on the department's fire safety website and social media venues as a dynamic source of fire safety information.

6.2.4 Division Administrative Support

The research and internal stakeholder consultation process confirmed that there is currently no dedicated administrative support for this division. When available the CKFR two current Administrative Assistants provide support when directed. Our review of the roles and responsibilities of the 'technical staff' assigned to this division including the FPO, three FI's and the PE identified a significant number of administrative tasks that could be completed by a qualified Administrative Assistant. The result would be more

time for these 'technical staff' to focus on their primary roles of conducting fire inspections and delivering public education programs.

In our view there is an existing need for the hiring of a dedicated Administrative Assistant to support the Prevention and Community Safety Division. A formal recommendation for this new position will be included in the proposed revised organizational structure and staff resource section of this FMP.

6.3 Staff Qualifications and Certification

The new O. Reg. 343/22 – Firefighter Certification (O. Reg.343/22) will affect all full-time staff responsible for the delivery of fire inspection, fire investigation and public education services. This new legislation will require all CKFR staff assigned (career and volunteer) to deliver these programs to at a minimum have the applicable O. Reg. 343/22 qualifications/certifications indicated in **Table 8** prior to July 1, 2026.

Table 8: Applicable Fire Inspection and Life Safety Qualifications/Certifications

Service/Program	Applicable Qualifications/ Certifications	Completion
Conducting fire and life safety inspections.	Level I – NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner.	July 1, 2026
Conducting fire and life safety inspections including in facilities that store, handle or use flammable/combustible liquids.	Level II – NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner.	July 1, 2026
Conducting fire cause and origin investigations.	Fire Investigator – NFPA 1033 Professional Qualifications for Fire Investigator.	July 1, 2026
Providing fire and life safety education.	Fire and Life Safety Educator I – NFPA 1035 Standard on Fire and Life Safety Educator, Public Information Officer, Youth Firesetter Intervention Specialist and Youth Firesetter Program	July 1, 2026

Service/Program	Applicable Qualifications/ Certifications	Completion
	Manager Professional Qualifications.	

6.3.1 Existing Staff Qualifications and Certification

As part of the data collection process for this FMP, documentation provided by the CKFR was utilized to determine the existing level of qualifications/certifications of the current fire prevention and community safety staff resources. **Table 9** indicates that all current staff are working towards attaining the required O. Reg. 343/22 qualifications and certification prior to July 1, 2026. It will be important for the CKFR to continue to support the training that will be required for the current staff to attain their required qualifications and certifications prior to July 1, 2026.

Consideration should also be given to revising the current job descriptions for all staff within this division to make the qualifications and certifications identified in O. Reg. 343/2 mandatory requirements of any future recruitment or hiring processes.

Table 9: Existing Staff Qualifications/Certifications

Qualification/ Certification	Fire Prevention Officer	Fire Inspector (1)	Fire Inspector (2)	Fire Inspector (3)	Public Educator
NFPA 1031, Level I	Yes	Yes	Yes	Yes	Yes
NFPA 1031, Level II	Yes	Yes	No	No	No
NFPA 1035, Level I	No	No	No	No	Yes
NFPA 1035, Level II	No	No	No	No	Yes
NFPA 1033	Yes	Yes	No	No	No
Commercial Cooking	Yes	Yes	Yes	No	No
Courtroom Procedures	Yes	Yes	Yes	No	Yes
BCIN[20] Legal Course	No	No	No	No	No
BCIN Fire Protection Course	No	No	No	No	No

6.4 Fire Prevention Policy

PFSG 04-45-12- Fire Prevention Policy provides a comprehensive framework for the development of a fire prevention policy. The purpose of a fire prevention policy includes the following:

- To establish policies and procedures for fire department personnel for fire prevention, public education programs and activities as a primary means of protecting lives and property from fire.

[20] BCIN – Building Code Identification Number.

- To maintain compliance with the minimum fire prevention and public education activities as required by the FPPA.

A Fire Prevention Policy is an effective tool for providing members of Council with a comprehensive overview of the department's fire prevention and public education programs and services. Council then as an opportunity to review the policy document and consider the proposed performance goals and objectives for each program and service that will ultimately reflect Council's approved service levels for this division. The approved performance goals and objectives can then be utilized to inform trend analyses; and inform ongoing monitoring of these services to the public. Once approved by Council the Fire Prevention Policy should be attached to the Establishing and Regulating By-law as an appendix.

At a minimum a Fire Prevention Policy should describe the following fire prevention and fire safety education programs and services:

- Fire and life safety education (including home smoke alarm program);
- Fire inspection activities;
- Fire code enforcement;
- Fire investigation and cause determination;
- Fire loss statistics; and
- Fire department operational guidelines identifying how, when and where activities will be conducted.

Our research and internal stakeholder consultation to prepare this FMP indicates that the CKFR does not currently have a Fire Prevention Policy. The current Establishing and Regulating By-law No. 20-2016 provides a basic summary of the fire prevention and public education services to be provided by the CKFR. However, the current by-law does not include any definition of the programs and services to be provided, or the intended performance goals and objectives.

The introduction of Ontario Regulation 378/18 – Community Risk Assessments provides the opportunity for municipalities to revise and/or implement additional fire prevention and public education programs and services in response to the CRA identified 'key risks' and 'key findings'. The proposed 'strategic priorities' presented within this FMP also

support the prioritization of fire prevention and public education as a core element of the Municipality's risk mitigation and risk reduction planning.

In our view the development of a comprehensive Fire Prevention Policy that clearly defines the department's fire prevention and public education programs and services including performance goals and objectives should be considered a priority.

Recommendation 6: That consideration be given to developing a comprehensive Fire Prevention Policy for consideration and approval by Council, and then included within the proposed updated Establishing and Regulating By-law as an appendix.

6.5 Existing Fire Prevention Program

The minimum legislative requirements for the delivery of fire prevention programs are outlined within the FPPA, which state that a municipality must "Establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention"[21]. An overview of the existing fire prevention and fire inspection programs provided by the CKFR is presented within the following sections of this FMP.

6.5.1 Applicable Legislation and Directives

Over the past decade there have been several stand-alone regulations made under the FPPA which directly relate to fire safety inspections. In addition, the Ontario Fire Marshal issued Directive 2014-003, establishing a standard for fire departments to follow when performing fire safety assessments and inspections upon request or complaint. These regulations and OFM directive are presented in the following sections and outline the minimum requirements for municipal fire inspection program in Ontario.

[21] Fire Protection and Prevention ACT, 1997, Part II Responsibilities for Fire Protection Services, Municipal responsibilities, 2. (1) (a).

6.5.1.1 Ontario Regulation 150/13 Enhancing Fire Safety in Occupancies Housing Vulnerable Ontarians

Ontario Regulation 150/13 – Enhancing Fire Safety in Occupancies Housing Vulnerable Ontarians was filed on May 9, 2013. This regulation introduced amendments to the OFC that came into force on January 1, 2014. The OFM led the development of this new regulation in consultation with a Technical Advisory Committee of industry experts. This regulation is intended to enhance fire safety in occupancies that house vulnerable occupants. The legislation applies to care, care and treatment and retirement homes that are regulated under the Retirement Homes Act.

6.5.1.2 Ontario Regulation 364/13 – Mandatory Inspection – Fire Drill in Vulnerable Occupancy

Ontario Regulation 364/13 – Mandatory Inspection – Fire Drill In Vulnerable Occupancy also requires that a fire inspector observe a fire drill scenario representing the facility's lowest staffing complement (as approved by the Chief Fire Official), conduct a fire safety inspection (utilizing the Annual Inspection Checklist which forms part of OFM Directive 2014-002: Vulnerable Occupancies – Fire Drill Scenarios, Fire Drill Observations, Fire Safety Inspections, as a minimum level of inspection), and then update the OFM's Vulnerable Occupancy Registry, as appropriate.

6.5.1.3 Ontario Regulation 365/13- Mandatory Assessment of Complaints and Requests for Approval

Ontario Regulation 365/13- Mandatory Assessment of Complaints and Requests for Approval requires the Chief Fire Official to assess a complaint about the fire safety of a building to determine if conducting a fire safety inspection of all or part in a building is warranted.

The regulation further requires Chief Fire Officials to determine whether or not a fire safety inspection is required when a request is made for approval under the fire code. As with complaints, the Chief Fire Official has been empowered to assess requests for approval to determine if a fire safety inspection is required.

Through consultation with the OFM it is our understanding that the intent of this regulation is not for the Chief Fire Official to cause a fire safety inspection to be

conducted as the result of every complaint or request for approval received, but rather to assess each complaint and request to determine if an inspection is necessary.

6.5.1.4 Fire Marshal's Directive: 2014-003

Fire Marshal's Directive: 2014-003 provides direction to all Assistants to the Fire Marshal to follow with respect to performing request or complaint inspections and was intended to provide a uniform standard for all fire departments to follow when conducting fire safety inspections and assessments. The directive references PFSG 40D-03 Inspections upon Request or Complaint and OFM TG-01-2012: Fire Safety Inspections and Enforcement.

These regulations and directives have added to the workload of prevention divisions within municipal fire departments in Ontario. As noted in the CRA, the Municipality of Chatham-Kent has 76 Vulnerable Occupancies, each requiring the CKFR to perform fire safety inspections and witness a fire drill on an annual basis. Additional training is required for those individuals responsible for approving the fire drill scenarios and fire safety plans for these facilities.

In compliance with Ontario Regulation 365/13: Mandatory Assessment of Complaints and Requests for Approval, upon receipt of a complaint or request for assistance to comply with the Fire Code, the CKFR will perform a fire safety inspection. This regulation requires that fire safety assessments, and inspections, if necessary, be undertaken for:

- Every building or property for which a fire safety complaint is received; and
- Every building or property for which a request for assistance to comply with the Fire Code is received and the involvement of the Chief Fire Official is required.

6.5.2 Existing Complaint/Request Fire Inspections

The research and internal stakeholder consultation process to prepare this FMP indicates that the CKFR is compliant with the Ontario Regulation 365/13: Mandatory Assessment of Complaints and Requests for Approval process. The CKFR responds to complaints by members of the community including building owners, tenants and workers related to fire and life safety concerns. The CKFR also responds to requests for fire inspections to assist members of community in complying with their legislative requirements under the OFC.

The public can express a concern, or identify a complaint by submitting the required information on the department's website at:

https://www.chatham-kent.ca/fire/inspections/Pages/Concern-and-Complaint-Form.aspx

6.5.3 Existing Routine Fire Inspection Program

In addition to request and complaint fire inspections the CKFR conducts routine fire inspections of the major building occupancy types included within the OBC. A request for a fire inspection can be made by mail, email or in person at any Municipal Service Centre. Further information related to requesting a fire inspection can be found on the department's website at:

https://www.chatham-kent.ca/fire/inspections/Pages/Inspections-and-Reports.aspx

Table 10 illustrates a summary of the CKFR current routine fire inspection cycle that is based upon the OBC major building type classifications. The current routine fire inspection cycles are based upon the information provided by the CKFR.

Table 10: Existing Routine Fire Inspection Cycle

Group	Occupancy Type	Existing Inspection Frequency
Group A	Assembly	Request/Complaint/After Fire
Group B	Care/Detention	Annually
Group B	Nursing Homes	Annually
Group B	Long-term Care Facilities	Annually
Group B	Retirement Communities/Homes	Annually
Group C	High/Low Rise (two to six units)	12 to 14 months
Group C	High/Low Rise (seven or more units)	12 to 14 months
Group C	Rooming, Boarding, Lodging	Annually
Group C	Dual Purpose-Accessory Apartment	Request/Complaint/After Fire
Group C	Hotel, Motel, Motor Lodge	Annually
Group D	Business and Personal Service	Request/Complaint/After Fire
Group D	Business Licence	Request/Complaint/After Fire

Group	Occupancy Type	Existing Inspection Frequency
Group E	Mercantile	Request/Complaint/After Fire
Group F	F1-High Hazard	Request/Complaint/After Fire
Group F	F2-Medium Hazard	Request/Complaint/After Fire
Group F	F3-Low Hazard	Request/Complaint/After Fire

Source: CKFR

As noted in the CRA, the Municipality of Chatham-Kent currently has 76 Vulnerable Occupancies (Group B – Care and Detention Occupancies) that are identified as having a 'High Risk' level. The CKFR current routine fire inspection cycle inspects these occupancies 'annually' as required by Ontario 364/13 – Mandatory Inspection – Fire Drill in Vulnerable Occupancy.

The CRA also identified that the municipality currently has 19 buildings that are defined as 'high-rise' buildings having a floor level 18 metres (59 feet) above grade, or six storeys (Group C-Residential Occupancies) that are also identified as having a 'High Risk' level. The CKFR current routine fire inspection cycle inspects these buildings every 12 to 14 months. Group C-Residential Occupancies were also identified by the CRA as having a 'high risk' level because all of the historical fire related deaths in the municipality and the majority of injuries occurred in these occupancy types.

Factors such as the current transition of staff within this division because of retirements; the resulting process to recruit and hire replacement staff; increasing workloads within the division as a result of the applicable legislation; and community growth are impeding the existing staff resource capabilities of this division to complete the existing routine fire inspection frequency cycles.

This FMP includes recommendations to further support the proposed 'strategic priorities' presented within this FMP including proposed strategies to further enhance the existing routine fire inspection program.

Our review indicates that the department's OG# 9-1 – Inspection Reports (May 28, 2013) and OG# 9-2 – Fire Inspections (June 16, 2014) need to be updated to reflect current department practices and the new Emergency Reporting records management software.

6.5.4 Fire Safety Enforcement Initiatives

OFM TG-01-2012 Fire Safety Inspections and Enforcement outlines recommended fire safety inspection and enforcement practices for fire departments in Ontario and provides municipalities with strategies, particularly related to enforcement of the OFC in situations where achieving compliance has, or may be more difficult to achieve. This technical guideline is intended to assist municipalities in efficiently and effectively meeting fire safety and enforcement responsibilities.

Historically, enforcement was not commonly used by municipalities working with property owners to achieve compliance with the OFC. This trend is changing across the province with the support of the OFM, in part through the introduction of this technical guidelines. Our research and stakeholder consultation indicates that the CKFR recognizes that there is substantial value to utilizing a variety of techniques to assist a property owner achieve compliance with the OFC. For example, engaging and educating the public about its responsibility to comply with the OFC is often enough to bring about compliance, however, there are instances where enforcement may be necessary.

When applicable, the CKFR utilizes Inspection Orders and Summons to Court under Part III of the Provincial Offences Act for matters of non-compliance with the OFC. It should be noted that enforcement through the court system can be time consuming for a fire department.

Another enforcement option made available to fire department under the Provincial Offences Act is the use of Certificate of Offence, commonly known as a ticket or a Part I. Ontario Regulation 52/15: Proceedings commenced by a Certificate of Offence was filed on March 11, 2015, expanding the number of ticketable offences under the OFC. In our experience, the use of tickets by fire departments has received mixed reviews across the province. There is value in discussing this option with the Municipality's legal department, to determine if, under the right circumstances, this enforcement tool may be appropriate. The training involved to prepare a Part I ticket is minimal and is available by contacting the OFM.

6.5.5 Fire Safety Plans

Fire safety plans are required for select occupancy types identified within the OFC. These occupancies include Group A – Assembly occupancies, and Group B – Care or

Detention occupancies. All remaining major occupancy groups (e.g., Group C – Residential, Group F – Industrial, etc.) also require fire safety plans depending on their occupancy load or other building-related features such as storeys below grade.

The OFC also details the content requirements of a fire safety plan. These requirements include emergency procedures in the case of a fire such as use of the fire alarm, notifying the fire department, and instruction and evacuation of occupants. Fire safety plans must also designate supervisory staff, and details relating to fire drills, control of fire hazards, and maintenance of building facilities. Fire Safety Plans provide an avenue for the training of building staff in the case of a fire incident. For example, the role of care providers at a long-term care facility in an evacuation procedure. The Fire Prevention Officer and two Fire Inspectors are currently designated as CFO's and are able to review and approved fire safety plans.

Recent legislated changes require all Chief Fire Officials (CFO) approving fire safety plans for buildings containing care occupancies, care and treatment occupancies or retirement homes, to successfully complete mandatory training as approved by the Fire Marshal[22]. At this time, the only training that has been approved by the OFM is offered through Public Services Health & Safety Association (PSHSA). The CKFR should ensure that all current, and future staff responsible for the review and approval of fire safety plans have completed the mandatory training required by the OFM.

6.5.6 Building Pre-Incident Planning

In comparison to a Fire Safety Plan, the process of pre-incident planning within the fire service is intended to provide a proactive awareness within fire departments about key building features, possible hazards, and other pertinent characteristics about an existing occupancy. Pre-incident planning is typically conducted by on-duty firefighters with information provided from a variety of sources including existing information from the Municipality, information gathered from the building owner, and site visits. The value of

[22] Source: "Mandatory Training", Ministry of the Solicitor General website, last updated: November 18, 2016, https://www.mcscs.jus.gov.on.ca/english/OfficeFireMarshal/CareOccupanciesCareandTreatmentOccupanciesandRetirementHomes/QuestionandAnswers/MandatoryTraining.html

a building pre-incident plan is to provide site specific education and information to fire suppression crews in advance of responding to an emergency incident.

The primary purpose of pre-plans is to assist fire suppression staff with formulating a plan and increasing awareness of the specific sites hazards in advance of an incident. Our research indicates that the CKFR has developed some pre-incident plans in the past. However, at this time there is no formal OG in place, or strategy that identifies the priority and target of buildings requiring a pre-incident plan. The department does have a digital template for preparing pre-incident plans, and once plans are completed, they can be loaded into Active 911 app for access by responding crews.

6.5.7 Building Plans Review

Building plan review is undertaken by the Municipality's Building Department. The CKFR has developed a positive working relationship with the Building Department and, when requested, the FPO will provide OFC technical advice. The CKFR Fire Prevention and Community Safety Division is not directly involved in the building permit application process including site plan review, building plan review, or inspections.

6.5.8 Hoarding

The **OHSA Section 21 – Guidance Note 6-44** describes hoarding as the distribution of "large quantities of objectives that cover all areas of a residence or other structure'[23]. Hoarding may create hazardous conditions for responding firefighters because of exists being blocked and fire loads being excessive due to the storage of excessive amounts of combustible material. OG#9-7 – Hoarding outlines the department's guidelines for responding to incidents involving hoarding.

Our research and internal stakeholder consultation identified that hoarding continues to be a challenge for CKFR. Our review also indicates that OG#9-7 was last updated in 2015, in our view this OG should be reviewed to reflect current department practices and the new Emergency Reporting records management software.

[23] Occupational Health and Safety Act, Section 21 Guidance Note 6-44

6.5.9 Encampments

Encampments are associated with numerous fire and life safety risks. These fire and life safety risks include including fuel loads (e.g., propane cylinders / tanks, kerosene), carbon monoxide poisoning for persons heating/cooking with fuel in an unventilated area, uncontrolled fires which can spread to surrounding areas, drug and alcohol use in combination with fire sources and misuse of ignition sources (e.g., flames from candles, heaters, cooking equipment, etc.).

The internal stakeholder consultation process identified that the CKFR has seen an increase in the number of open-air burning complaints associated with encampments located in Chatham-Kent.

6.5.10 False Alarms

The CRA identified that during the period from January 1, 2015, to December 31, 2019, false fire calls were responsible for 16.5% of the department's total emergency call volume. For this period false alarms were the second highest emergency response call types. False alarms can be caused by a wide range of factors such as a malfunction in the fire alarm system, the accidental activation of the alarm system, alarms systems being activated as a prank and the alarm system being activated because of a perceived emergency.

By-Law 39-2021 enables the municipality to recover the costs associated with responding to false alarms. Responding to a false alarm incident may draw multiple emergency vehicles away from their ability to respond to other incidents and can delay an emergency response to an actual fire or life safety emergency.

Based on our research and stakeholder consultation to prepare this FMP a further review of strategies to reduce false alarms within the Municipality of Chatham Kent may be warranted. This may include further community outreach to business and property owners, and the organizations the department has developed existing partnerships with. Identifying properties that have a history of false alarms may warrant an increased fire inspection cycle, or a review of the current fees for false alarms to these occupancies that may warrant more severe penalties.

6.5.11 Fire Investigation and Cause Determination

Investigating the origin and cause of a fire is the legislated responsibility of a municipal fire service. Where fires meet specific criteria, the local fire department can request assistance from the OFM to conduct these investigations. The criteria and process for this request are contained in Fire Marshal's Directive 2019-001.

The department's OG#9-8 – Fire Investigations (June 24, 2016) and OG#4-47 – Fire Investigations describe the guidelines for CKFR staff to conduct a fire investigation and to contact the OFM to request a fire investigator. Our review indicates that these guidelines need to be updated to reflect current department practices, the new Emergency Reporting records management software, and the requirements of the Fire Marshal's Directive 2019-001.

6.5.12 Existing Fire Prevention Program Summary

Our review of the CKFR existing fire inspection and enforcement programs indicates that this division is currently experiencing a turnover of staff due to retirement. Although these vacancies are being filled there is an associated short-term impact in loss of experience and knowledge. There is also a loss of available staff time associated with the recruitment process. In our view the incidents of staff turnover are being compounded by the impacts of new regulations/legislation and community growth including intensification.

Our research and stakeholder consultation confirms that this division is currently unable to complete the number of routine fire inspections and re-inspections to achieve the existing routine fire inspection cycles. As a result, this division is currently prioritizing the fire inspections and activities required to comply with the applicable vulnerable occupancy legislation and challenges associated with migrant workers housing.

Our research and stakeholder consultation also indicates that there is a need for this division to review and update the current OGs in several areas. This FMP includes proposed strategies to further enhance the existing fire prevention services and programs in response to the CRA and the findings presented within this section.

6.6 Existing Community Safety Program

PFSG-04-40-03 and PFSG-04-40-12 issued by the OFM indicate that the minimum legislative requirements of a municipality for public education programs are a smoke alarm program that includes home escape planning and the distribution of fire safety material. Our research into preparing this FMP indicates that the CKFR currently complies with its legislated requirements for public education. For example, the CKFR maintains a comprehensive website that provides valuable information related to:

- Home Fire Safety.
- Seasonal Fire Safety.
- Student Fire Safety.
- High Risk Population.
- Tenants and Landlords.
- Apartment Fire Safety.
- Emergency Preparedness.
- Arson Prevention.

The following sections provide further details regarding the CKFR existing community safety services and programs. Further information related to each of these programs can be found on the department's website at:

https://www.chatham-kent.ca/fire/safety/Pages/Home-Fire-Safety.aspxc

6.6.1 CHiRP Home Safety Program (Smoke Alarm and Carbon Monoxide Alarm Checks)

The Ontario Fire Code requires a working smoke alarm to be installed on each level of a dwelling unit, as well as outside of all sleeping areas. Responsibility for installation and maintenance of the smoke alarm lies with the owner/landlord. To assist municipalities in complying with this legislation the OFM has developed PFSG 04-40B-03: Smoke Alarm Program that outlines the objectives that include the following:

- Providing smoke alarm and home fire escape planning information;
- Promoting regular testing and maintenance of smoke alarms;
- Providing or replacing smoke alarms and/or batteries;
- Encouraging residents to regularly maintain their smoke alarms;

- Educating residents about the legal requirements for smoke alarms;
- Enforcement of all legislation relating to smoke alarms;
- Effectively tracking and evaluating your smoke alarm program; and
- Modifying the program where necessary to ensure success.

Ontario Regulation 194/14 – Carbon Monoxide Alarms includes new requirements for the installation, testing and maintenance of Carbon Monoxide Alarms (CO Alarms). As a result, fire services within the province have also been tasked with monitoring compliance with this new regulation. Current industry best practices indicate that fire services are revising their previous home smoke alarm programs to include assessing compliance with this new regulation.

Based on our research and internal stakeholder consultation to complete this FMP it is our view that the department's existing CHiRP – Home Safety Program complies with the Municipality's legislative requirements for smoke alarms and carbon monoxide alarms.

The existing CHiRP program is also available to people living in apartments through the 'My Part-My Apartment – Fire and Emergency Safety Program. In addition to the CHiRP home safety checks this program includes educating residents to recognize the need to 'shelter-in-place' and ensure that their unit entry door is closed and sealed.

The existing CHiRP program has an added value through including strategic community partner organizations and engagement opportunities. These alliances benefit the program by providing access to the following:

- The ability to provide bed shakers for the hearing impaired;
- The ability to provide fire blankets to vulnerable demographics in the community; and
- Full-service referrals when necessary.

The utilization of this program was dramatically impacted by the recent COVID-19 pandemic. However, on October 27, 2022, this program was relaunched by firefighters from all 19 fire stations going door-to-door to conduct over 750 CHiRP Home Safety Checks. Feedback expressed by the internal and external consultation participants voiced very positive support of this program.

Our review indicates that the existing CHiRP program is delivered continuously throughout the year, with a special emphasis on the CKFR's annual event 'CHiRP Day in CK'.

6.6.2 Arson Prevention for Your Business

This program is another example of the strategic partnerships that the CKFR has developed to focus on community safety. This program includes collaboration with the Chatham-Kent Police Services (CKPS) and the Chatham-Kent Economic Development to meet with local business operators to provide information related to arson prevention and business continuity. Together the partnering agencies have developed a unique arson prevention brochure to provide to business operators.

6.6.3 School Firefighter Program

The CKFR facilitates the delivery of a number of community fire safety programs that target schools. These include targeting a specific schools and grades each year with the School Firefighter Program. The School Firefighter program was initially adopted as a volunteer firefighter recruitment strategy for CKFR.

6.6.4 FIRST Strategy

The FIRST (Fast Integration Risk Specific Teams) Strategy is unique program that the CKFR has developed in collaboration with its community partnership organizations. This program provides firefighters with access to other agencies and programs in the event they identify a person, or persons who may be at risk and in need of assistance. This program is built on the foundation that "early intervention is important to reduce the need for more intensive and reactive responses such as hospitalization, arrests, and apprehensions".

In our view this program represents a unique community best practice that should be shared with other municipalities.

6.6.5 Community Outreach Programs

The CKFR is an active participant and leader in providing community outreach programs that support the importance of community safety. These include firefighters attending a wide range of community events to promote fire safety and to support community

engagement. Firefighters target similar objects by facilitating fire station tours and open houses.

Fire extinguisher training is also provided to community groups, local business, and schools. Fire safety messaging is also delivered as part of partnerships with the local agriculture organizations that also have a targeted focus on farm safety including silos.

The CKFR also has a community outreach program that targets seniors in the community. This includes attending senior's events, and presenting community safety messaging during visits to senior's centres and organization meetings. At the time of finalizing this FMP the CKFR was in the process of developing a new partnership with the Chatham-Kent Community Health Centres to facilitate seniors cooking classes to be offered at fire stations throughout the community.

6.6.6 Summary Existing Community Safety Program

The CKFR is currently providing a comprehensive community safety program that in our view appropriately exceeds the minimum legislative requirements of the municipality. In our view this is a clear indicator of the CKFR's support of the 'first two lines of defense' including public education and fire prevention, and the utilization of fire safety standards and fire code enforcement.

This FMP includes proposed strategies to further enhance the existing community safety programs in response to the CRA and the findings presented within this section.

6.7 Proposed Fire Prevention and Community Safety Strategies

The analysis presented within this FMP and the introduction of the new O. Reg. 378/18 – Community Risk Assessments provide the Municipality of Chatham-Kent with an opportunity to consider enhancing its existing fire prevention and community safety programs in response to the identified fire-related risks within the community. The proposed fire inspection and community safety strategies are based on the optimization of the proposed 'strategic priorities' presented within this FMP that include:

'The Municipality of Chatham-Kent supports the identification and implementation of services and programs that optimize the first two lines of defense, including public education and fire prevention, and the utilization of fire safety standards and fire code enforcement'.

In our view the analysis of the CKFR's existing fire prevention and community safety programs, presented within this FMP, provide a foundation for identifying strategies to further enhance the current fire prevention and community safety programs being provided by the CKFR. The proposed fire inspection and community safety strategies have considered the current Council-approved staffing complement for this division, and regardless of their current skills and experience, we have assumed that they are each able to function at a level equaling 100% of their expected performance including:

- Fire Prevention Officer (one);
- Fire Inspector (three); and
- Public Educator (one).

In addition to the optimal utilization of these existing staff the analysis within the following sections will present strategies to further optimize the utilization of on-duty fire suppression staff (career and volunteer firefighters). Where applicable the strategies presented will also identify where additional resources will be required to fully implement the proposed fire prevention and community safety strategies.

The analysis of the existing fire inspection and enforcement programs being provided by the CKFR indicates that staff in this division are currently focusing on the municipality's legislated fire inspection requirements for the inspection and evacuation training for vulnerable occupancies, and challenges associated with migrant worker housing.

Where time permits division staff are completing some routine fire inspections but are unable to complete the existing routine fire inspection frequency cycles. In addition to this existing challenge the CRA has identified the following **'identified risks'** for consideration as part of developing an enhanced fire inspection and community safety program.

- Group C – Residential Occupancies represent 91.3% (36,681) of the Municipality's existing building stock, and over the five-year period from January 1, 2015, to December 31, 2019, were associated with 72.5% (296) of the structure fires within the Municipality (High Risk Level).
- The 2016 Census data indicates that 75.5% (32,480) of the Municipality's Group C - Residential building stock was built prior to the introduction of the 1981 Ontario Fire Code and Ontario Building Code compared to 53.1% (2,742,720) of residential building stock in the remainder of the province (High Risk Level).

- The Municipality currently has 19 building defined by the O.B.C. as high-rise buildings with a floor level 18 metres (59 feet) above grade, or six storeys. These buildings are primarily located within the settlement area of Chatham (High Risk Level).
- The Municipality has 131 buildings with a total building area (footprint) that exceed 50,000 square feet. These buildings are located throughout the Municipality in both the urban and rural areas (High Risk Level).
- The Municipality currently has 76 vulnerable occupancies (High Risk Level).
- Seniors (those 65 years and over) are considered to represent one of the highest fire risk groups across the province based on residential fire death rate. According to the 2016 Census, seniors represent 21.1% (21,415) of the Municipality's total population (High Risk Level).

The following sections present strategies for consideration in developing an enhanced fire inspection and community safety program within the Municipality of Chatham-Kent.

6.7.1 Proposed Routine Fire Inspection Strategy

As indicated within the previous sections of this FMP the staff within this division are currently unable to complete the existing routine fire inspection frequency cycles. Priority is currently be assigned to vulnerable occupancies and migrant worker housing. Subject to the consideration and implementation of the following proposed fire prevention and community safety strategies consideration should be given to updating the current fire inspection cycles in response to the findings of the CRA.

The following proposed fire prevention and community safety strategies are intended to further optimize the utilization of the on-duty career firefighters, and where possible the volunteer firefighters to implement strategies that in the short-term would identify occupancies where there may be an identified need to prioritize a fire inspection based on existing fire-related risks. In our view the implementation of these proposed strategies would assist in the identification of existing occupancies that are not included within the existing routine inspection cycle, and may not be compliant with the fire and life safety requirements of the OFC.

6.7.2 Proposed Fire Safety Audit Strategy

This strategy proposes the utilization of on-duty firefighters to conduct an initial fire safety audit of building occupancy types beginning with Group C – Low-Rise and High-

Rise Multi Family Occupancies. The objective of this program would be to conduct an initial fire safety audit of the fire and life safety systems in these buildings. As an 'audit' it should be recognized that this program is not intended to replace a routine fire inspection.

With appropriate training this program is intended to identify buildings of these occupancy types where a deficiency, or a possible fire code violation may exist. This could include a fire alarm system that is not functioning, or one that has not been recently inspected. The primary objective of this program would be to collect, and update information related to the building such as the owner, superintendent and the current status of fire and life safety systems within the building such as sprinkler, or fire and life safety systems. As a risk reduction strategy this program would expand the existing capabilities of the CKFR in identifying current 'at risk' buildings within these building occupancy types.

On completion of the proposed fire safety audit the on-duty fire suppression staff would prepare a report to the FPO indicating the current status of all fire and life safety systems within the building audited. This report would include an area that would highlight any identified issues with the existing fire and life safety systems and recommend if a routine fire inspection was required.

The utilization of on-duty firefighters to assist in the delivery of fire prevention and community safety programs has become a necessity for municipalities to prioritize the effectiveness of fire-related risk reduction strategies. With some initial training this program could be implemented as an 'audit' and not a 'fire inspection'. However, in the future this program should recognize the requirements of the new O. Reg. 343/22 – Firefighter Certification.

6.7.3 Proposed Targeted Pre-Incident Planning Strategy

The value of creating a building pre-fire plan is to provide site specific hazards and information to fire suppression crews in advance of responding to an emergency incident. This program also provides the opportunity to collect up to date data related to the owner, superintendent, fire and life safety systems and other valuable information for the fire department. The proposed targeted pre-incident planning strategy is also intended to supplement the current routine fire inspection program for specific occupancy types.

For example, the CRA identified that the municipality currently has 131 buildings with a total building area (footprint) that exceed 50,000 square feet. These buildings are located throughout the Municipality in both the urban and rural areas and are identified as having a 'high risk level'.

The proposed targeted Pre-Incident Planning Program would include the CKFR conducting an initial onsite visit of these occupancy types by fire suppression crews (including career and volunteer firefighters) who as part of the pre-incident planning process could identify potential existing fire and life safety risks. In addition to completing a pre-incident plan the result of this strategy would be the identification of any existing fire and life safety concerns that could be reported to the FPO for consideration in conducting a routine fire inspection of the occupancy.

6.7.4 Proposed Community Risk Assessment Application Strategy

One of the mandatory requirements of O. Reg. 378/18 is that municipalities "use its community risk assessment to inform decisions about the provision of fire protection services"[24]. For example, the CRA has identified several 'identified risks' and 'key findings' that in our view warrant further consideration as part of enhancing the existing fire prevention and community safety programs provided by the CKFR. The following are examples of how the CKFR could utilize its CRA to inform strategies to enhance the existing fire prevention and community safety programs:

- Of the fires occurring in the Municipality over the five-year period from January 1, 2015, to December 31, 2019, the leading cause of unintentionally set fires was due to misuse of ignition source at 25.7% (105 fires), compared to 29.9% in the province (Identified Moderate Risk Level).
- Of the fires occurring in the Municipality over the five-year period from January 1, 2015, to December 31, 2019, the second most common cause of unintentionally set fires was due to mechanical/electrical failure at 15.2% (62 fires), compared to 15.4% in the province (Identified Moderate Risk Level).

[24] Ontario Regulation 378/18-Community Risk Assessments, Mandatory Use 1. (b).

In our view these 'identified risks' warrant further consideration for inclusion in the existing public education programing to heighten awareness of the specific fire-related risks associated with ignition sources, and mechanical/electrical failure.

- For the period from January 1, 2015, to December 31, 2019, the second highest percentage of emergency call volume responded to by CKFR as defined by the OFM response types was false fire calls representing 16.5% of total emergency call volume (key finding).

In our view this 'key finding' warrants further consideration into evaluating the specific causes of this high percentage of false fire calls. This may include a reconsideration of the existing false alarm fee schedule, the need for further education of building owners, or further discussion with the department's community partners such as the CKPS.

6.7.5 Proposed Enhanced Seniors Fire Safety Education Program

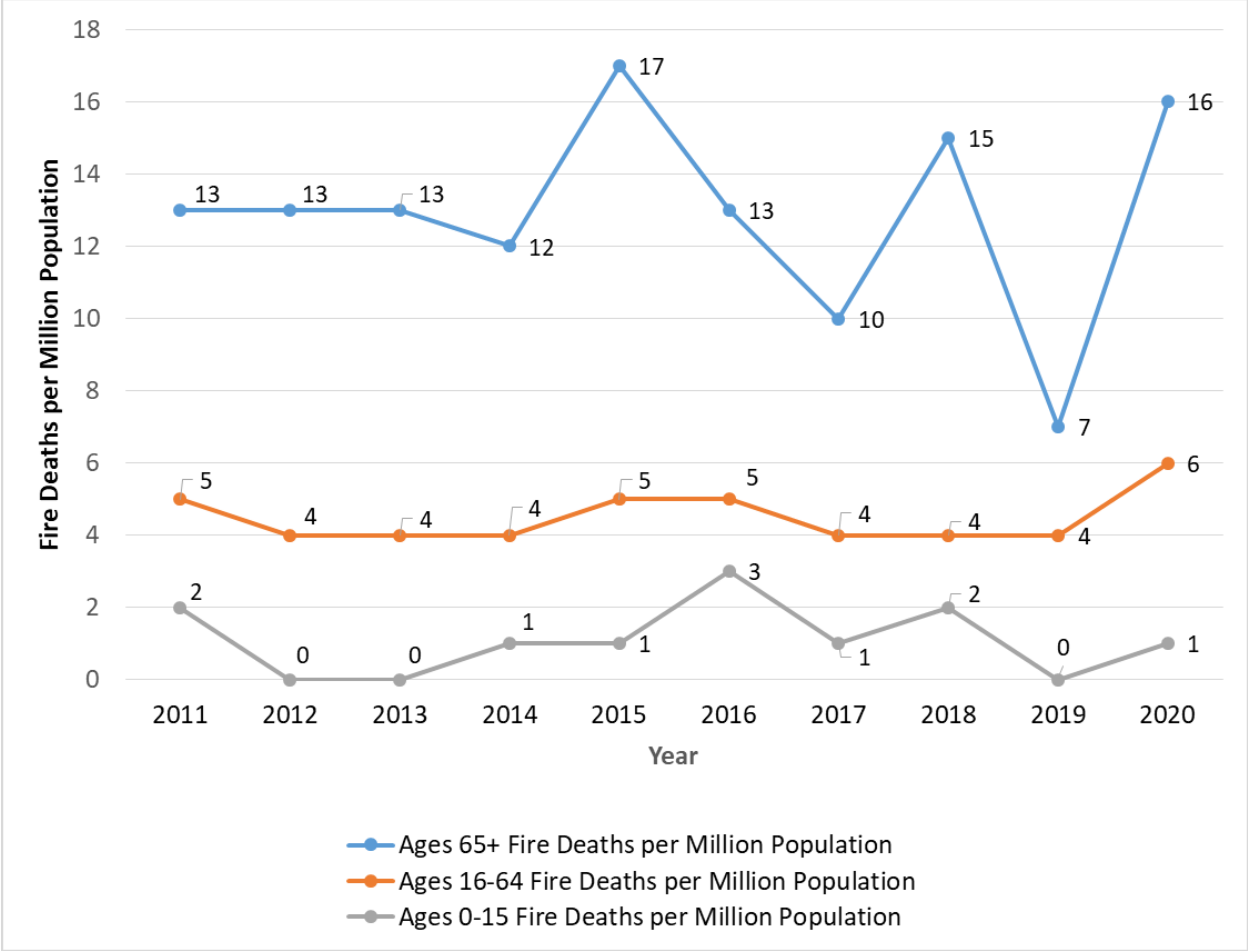
As indicated previously within this FMP the CKFR has developed a comprehensive community outreach program that includes fire safety initiatives targeting seniors. The CKFR is also in the process of developing a new partnership with the Chatham-Kent Community Health Centres to facilitate seniors cooking classes to be offered at fire stations throughout the community.

The 'identified risks' and 'key findings" presented within the CRA indicate that collectively over 50% of the municipality's population is already defined as a 'senior' or in a cohort that is aging towards becoming a 'senior'.

- Seniors (those 65 years and over) are considered to represent one of the highest fire risk groups across the province based on residential fire death rate. According to the 2016 Census, seniors represent 21.1% (21,415) of the Municipality's total population (Identified High Risk Level).
- Of the Municipality's total population, 30.0% (30,445) fall into the age range of 45 to 64, representing a cohort aging towards the senior demographic of 65 years or older.

Figure 4 illustrates the findings of research conducted by the OFM that identifies the increasing residential fire death rate (fire deaths per million of population) in Ontario.

Figure 4: 2011-2020 Residential Fire Death Rate by Age of Victim



Source: OFM

In our view, these factors further support the existing CKFR community outreach initiatives and the need for developing further targeted senior's fire safety education programs. This may include further utilization of existing community relationships and investigating additional partnerships with seniors' organizations in the community. Ultimately the proposed enhanced senior's fire safety education program needs to provider greater outreach on behalf of the CKFR towards fire safety education for seniors, and specifically seniors living alone.

6.7.6 Proposed Encampment Strategy

Our research to prepare this FMP indicates that the CKFR does not currently have an OG for responses to encampments. In our view the CKFR should consult with its community

partners in developing an appropriate OG to guide the response and actions of fire suppression staff responding to incidents located within an encampment.

Recommendation 7: That consideration be given to implementing the proposed fire prevention and community safety strategies identified within the proposed Fire Master Plan.

6.8 Fire Prevention and Community Safety Division Summary

Our analysis of the current fire prevention and community safety initiatives provided by the CKFR confirms the feedback of the internal and external stakeholder consultation process. Fire prevention and community safety are a current strength of the CKFR. This includes the commitment and dedication of the SMT, staff assigned to the fire prevention and community safety division, career, and volunteer firefighters.

In our view the recently completed Community Risk Assessment provides the opportunity for the CKFR to consider the implementation of further fire prevention and community safety initiatives that would build on the strength of the foundation that has been established.

Our review of the existing staff resources assigned to the Prevention and Community Safety Division indicates that they are working at their current capacity. As indicated in previous sections of this report there is an identified need to provide dedicated administrative support to the division to allow the Fire Prevention Officer, Fire Inspectors and Public Educator more flexibility to prioritize their workload on the more technical elements of their positions. In our view there is a related need to consider the hiring of additional full-time staff resources to sustain the effectiveness of the existing prevention and community safety initiatives in response to continuing community growth, and to fully implement the proposed fire prevention and community safety strategies.

Further details related to the proposed additional staff resources will be presented within the proposed staff resource and organizational structure section of this FMP.

The following is a summary of the recommendations for the Prevention and Community Safety Division.

5. That consideration be given to developing a Community Risk Reduction Plan as presented within the proposed Fire Master Plan.
6. That consideration be given to developing a comprehensive Fire Prevention Policy for consideration and approval by Council, and then included within the proposed updated Establishing and Regulating By-law as an appendix.
7. That consideration be given to implementing the proposed fire prevention and community safety strategies identified within the proposed Fire Master Plan.

7.0 Training and Safety Division

The primary role of the CKFR Training and Safety Division is to ensure that all fire suppression staff (career and volunteer firefighters) receive the training required to deliver the fire suppression services authorized by Council, and to comply with the Occupational Health and Safety Act (OHSA). Over the past decade, the level of firefighter training in Ontario has come under increased scrutiny during in numerous inquests and resulting in a newly imposed regulation stipulating minimum standards for all firefighter training.

On April 14, 2022, the Ministry of the Solicitor General filed Ontario Regulation 343/22 – Firefighter Certification, requiring all firefighters, including career and volunteer, to be certified to the same National Fire Protection Association Professional Qualification (NFPA Pro-Qual) standards. This applies to all fire protection services provided by the municipality, including hazardous materials response, by July 1, 2026, and for all specialized rescue services by July 1, 2028.

The following sections of this report present a summary of the CKFR existing training staff resources and training programs. Recommendations and strategies are provided for consideration where opportunities exist to assist the department with maintaining compliance with applicable legislation, or to improve programs or services to better align the department in comparison to current industry best practices.

This fire master planning process highlights the relevance of assessing community fire risk as a component of determining the appropriate level of fire protection services to be provided. The information and analysis within this section will present the importance of linking the applicable training requirements of all CKFR fire suppression staff, including career and volunteer firefighters, with the level of fire suppression services to be provided by the CKFR.

Based on our experience in the fire service, and our knowledge of the new *O. Reg. 343/22: Firefighter Certification*, we anticipate that updating the CKFR current fire suppression training initiatives to comply with O. Reg. 343/22, and then delivering the required fire suppression training to a total complement of over 400 career and volunteer firefighters will be a significant challenge. It should also be recognized that

once compliance has been achieved with O. Reg. 343/22 there will be an ongoing challenge to maintain compliance in the future.

In our view transitioning to compliance with O. Reg. 343/22 provides the CKFR a unique opportunity to implement a standardized comprehensive training program for all fire suppression staff, including career and volunteer firefighters. In our view this represents a major shift from the historical training practices and variable skills and competencies of the career and volunteer firefighters that have been in place since amalgamation. The introduction of O. Reg. 343/22 provides a new foundation for the CKFR to achieve the proposed 'Strategic Priorities' presented within FMP including that:

"The Municipality of Chatham-Kent is committed to supporting the transition of the Chatham-Kent Fire and Rescue into a fully integrated, composite fire service operating model".

7.1 Ontario Regulation 343/22 – Firefighter Certification

Ontario Regulation 343/22 – Firefighter Certification establishes the requirement for fire service personnel (career and volunteer firefighters) that participate in the delivery of specific fire protection services to be certified to the corresponding NFPA Professional Qualification Standard (NFPA Pro-Qual).

Firefighter training in Ontario has come under increased scrutiny due to firefighter injuries and fatalities, resulting in several inquests. In an effort to address some of the recommendations from the inquest and improve firefighter safety, the Ministry of the Solicitor General created O. Reg. 343/22 under the FPPA which came into force on July 1, 2022. O. Reg. 343/22 requires municipalities to ensure that a firefighter who provides a fire protection service listed in O. Reg. 343/22 is certified to the applicable NFPA Pro-Qual Standard for providing that service. Municipalities will have four to six years to meet the requirements.

It is important to note the distinction between a professional qualification standard, training and certification. The NFPA Pro-Qual Standards identify the minimum job performance requirements for various roles in the delivery of fire protection services. Training is the delivery of information to develop knowledge and skills to perform the tasks necessary to deliver fire protection services. Certification is the validation that an

individual has demonstrated they have mastered the knowledge and skills necessary for the delivery of that fire protection service.

Prior to O. Reg. 343/22, providing training was considered an acceptable form of best practice for firefighters. Moving forward O. Reg. 343/22 explicitly requires all firefighters to be "certified" by either "the Fire Marshal; or an accreditation from the International Fire Safety Accreditation Congress (IFSAC), or a Pro Board seal, that is recognized by the Fire Marshal as equivalent to the certification provided by the Fire Marshal".

In summary, Ontario's new O. Reg. 343/22 – Firefighter Certification legislation requires municipalities to have their firefighters (career and volunteer) to be certified to the prescribed NFPA standards, ensuring that such certification is issued by the Fire Marshal or by an agency with IFSAC or Pro Board accreditation acceptable to the Fire Marshal.

7.1.1 Certification of Existing Fire Suppression Staff (Career and Volunteer)

O. Reg. 343/22 requires that a municipality's fire suppression training requirements, and therefore firefighter certification, needs be based on the level of fire suppression services to be provided. This emphasizes the importance of the municipality's Establishing and Regulating By-law in accurately defining the fire suppression services approved by Council. This FMP includes a recommendation to update the Chatham-Kent current Establishing and Regulating By-law No 292-2004. The current bylaw contains a very broad statement defining the current Council approved fire suppression services that states "Is to intervene as soon as is feasible so as to protect life, property and the environment from all perils arising within the area of jurisdiction, through education, containment, rescue and suppression activities"[25]. The current bylaw also includes a very broad description of the Council approved 'technical rescue' services that includes the response to hazardous materials incidents, extrication and rescue, water-based rescue, dive rescue and recovery, shore-based ice rescue, and ambulance/medical assists.

[25] Municipality of Chatham-Kent Establishing and Regulating Bylaw Number 292-2004, Classification and Task Objective of the Mandated Services, Classification 2. Fire Suppression.

Table 11 below provides a simplified overview, referencing the department's existing fire suppression and specialized rescue service levels in comparison to the required NFPA Pro Qual standards and certification requirements.

Table 11: Existing Fire Suppression Service Levels and Required Certification

Existing Level of Service	Applicable NFPA Pro-Qual Standard	Compliance Deadline
Fire Suppression – Firefighter	• NFPA 1001 (Firefighter II). • NFPA 1002 (Apparatus Equipped with Fire Pump).[26] • NFPA 1072 (Hazmat Operations).	July 1, 2026
Fire Suppression – Company Officer	• NFPA 1021 (Fire Officer 1). • NFPA 1521 (Incident Safety Officers). • NFPA 1041 (Fire and Emergency Services Instructor).[27]	July 1, 2026
Vehicle Extrication	• NFPA 1001 (Firefighter II).	July 1, 2026
Hazardous Materials Leaks and Spills	• NFPA 1072 (Hazardous Materials Technician).	July 1, 2026
Ice and Water Rescue	• NFPA 1006 (Ice Water Rescue Technician). • NFPA 1006 (Swift Water Rescue Operations).	July 1, 2028

It should be recognized that O. Reg. 343/22 acknowledges all previous certifications as being "valid even if the requirements for obtaining that certification are subsequently updated or changed". This includes firefighters who may have applied for a "letter of compliance" in response to the OFM's "Grandfathering Policy" that was completed in 2014.

The new O. Reg. 343/22 includes a similar opportunity as provided by the OFM's 2014 "Grandfathering Policy". This new process is referred to as the 'Legacy Process' that may

[26] O. Reg. 343/22 provides an exception for "a firefighter who performed Pump Operations before the day this Regulation came into force".

[27] NPFA 1041 is not specifically required by O. Reg. 343/22, but is a pre-requisite for NPFA 1021 Certification.

grant compliance for select portions of each NFPA standard. For example, departments may apply for certification letters in: exterior fire attack and hazmat operations, or interior fire attack and auto extrication, but not both. This is because the combination of these skills is considered "full service" certification to the NFPA 1001 Firefighter II standard, which is not permitted as part of the OFM legacy process.

The CKFR submitted 47 applications to the OFM 'Legacy Process' for consideration. The 47 volunteer firefighters who applied through this process received certification as required by O. Reg. 343/22 for 'Interior Attack and Auto Extrication'.

The following sections provide insight into the options available for the CKFR to attain the required fire suppression certifications for career and volunteer firefighters.

7.1.2 CKFR Certification Options

To ensure ongoing compliance with O. Reg. 343/22, the fire suppression training provided by CKFR must meet the NFPA Pro-Qual Standards and be formally accredited from either the IFSAC, Fire Service Professional Qualification System (Pro-Board), or the OFM.

In Ontario, the OFM's Academic Standards and Evaluation (AS&E) section is the only authority having jurisdiction (AHJ) able to provide either IFSAC or Pro-Board accredited certification. Outside of the previously mentioned grandfathering process, NFPA Pro-Qual certifications can only be obtained through an AS&E approved course, which requires a proctored written exam, and may also include practical evaluations. Fire departments seeking to train staff through these approved courses have five options:

1. Through Ontario Fire College courses, which may be held at a Regional Training Centre (RTC), entirely online or in a blended format;
2. Through courses at a Registered Private Career College;
3. Third-Party Training Providers;
4. Out of Province Training Certification; and
5. In-House Certification Program:
    5.1. Through a learning contract with the OFC whereby qualified staff can deliver OFC curriculum. Certification testing completed by AS&E proctor; and

5.2. Through curriculum developed by CKFR, provided said curriculum is compliant with the relevant NFPA standard and approved by AS&E. Certification testing completed by AS&E proctor.

The following sections will discuss each option in greater detail.

7.1.2.1 Ontario Fire College Certification

Fire departments may choose to pursue NFPA Pro-Qual certification through courses provided by the Ontario Fire College and delivered at Regional Training Centres (RTC). The OFC is operated by the OFM under the authority of the Ministry of the Solicitor General. On January 14, 2021, the OFM issued Communique 2021-01 announcing the closure of the Ontario Fire College in Gravenhurst. This closure aligned with the OFM's transition to the optimization of the RTC model including options for online and blended learning. Courses offered through the OFC have the benefit of being a straightforward path to certification and are relatively affordable when compared to those offered at private colleges.

Access to these courses has become a significant challenge as every fire department in Ontario seeks to comply with the new firefighter certification requirements**.** It would be extremely challenging for the CKFR to utilize an RTC for the delivery of firefighter certification courses. For example, most courses are only offered on a series of weekends as they primarily target volunteer firefighters.

RTC also provide NFPA courses related to specialized rescue training courses (e.g., Hazmat Technician) that could be utilized by the CKFR as a 'train the trainer' strategy for the existing staff resources.

7.1.2.2 Registered Private Career College Certification

The OFM recognizes three Registered Private Career Colleges in Ontario that deliver certified NFPA Pro-Qual courses similar to those offered at the OFC. These colleges may be more accessible depending on the program, but also tend to cost significantly more than equivalent courses offered through the OFC. As such, fire departments may wish to avoid the use of private colleges for NFPA Pro-Qual certification where other options exist.

7.1.2.3 Third - Party Training Provider Certification

Departments also have the option of retaining subject matter experts to provide training related to a particular NFPA standard, or specific training related to other departmental activities. Similar to private career colleges, this training can be more expensive than courses offered through the Ontario Fire College, although, this cost can sometimes be offset by providing training locally, with greater scheduling flexibility, reducing overtime and eliminating travel costs.

However, unlike the three Registered Private Career Colleges identified by the OFM, not all third-party providers are capable of arranging the necessary IFSAC or Pro-Board certification required by Regulation 343/22. Furthermore, there have been several inquests within the province over the past decade involving external or third-party training providers. Recommendations from these inquests have identified the need for provincially regulated training qualifications and certifications. Of course, there is a role for third-party companies in the professional development, training, and education of firefighters. In some instances, third-party providers may be the best or only option. Still, fire departments should use caution when selecting a company to provide training, ensuring the delivered product meets the needs of their organization.

7.1.2.4 Out of Province Training Certification

Out of province learning opportunities provide an additional certification training option. However, travel and overtime costs may make this option cost prohibitive for most fire departments. However, out of province training could be considered as an option for non-fire suppression staff who traditionally work weekdays as there are some courses that are not yet offered in Ontario (e.g., NFPA 1031 Level III, Plans Examiner I and II, NFPA 1035 Fire and Life Safety Educator, Level III, and NFPA 1041 Fire Instructor, Level III).

7.1.2.5 CKFR (In House) Certification Program

Based on our review of the current firefighter training initiatives developed by the CKFR, it is apparent that the department has developed a foundation for attaining compliance with the new O. Reg. 343/2 – Firefighter Certification. For example, candidates who participate in the current CKFR Auxiliary Firefighter Training Program complete the required provincial testing provided by the AS&E Division of the OFM and receive their

IFSAC and ProBoard mandatory certification as required by O. Reg. 343/22 – Firefighter Certification.

Based on our research and internal stakeholder consultation it is recommended that the CKFR continue the enhancement of its current firefighter training initiatives which align with **NFPA Pro-Qual certification**.

There are two main options for pursuing certification: develop and deliver in-house training and certification or use the OFC prepared materials through an approved learning contract with the OFM. It is our understanding that CKFR is developing and delivering an in-house NFPA-compliant curriculum for approval by AS&E using AS&E Assessment Checklists.

In comparison to utilizing the existing OFC prepared materials and OFM learning contract, the in-house program adopted by CKFR provides greater flexibility as it has the unique benefit of including department specific considerations (e.g., OGs, community risks, etc.), while also providing NFPA Pro-Qual certification.

CKFR is developing an in-house model aided by NFPA-approved textbooks, most of which offer supporting instructional tools, such as PowerPoints and study aids at no additional cost. Applications for each course and supporting plans must be submitted to AS&E for approval. Approved courses can then be delivered in-house by qualified CKFR training staff. Final testing and certification will remain the jurisdiction of AS&E and must be conducted through an AS&E approved proctor.

The OFC program and learning contract model was developed primarily to assist smaller communities utilizing volunteer firefighters. By necessity, courses developed and issued by the OFC must be suitable for every fire department in the province. While there are many benefits to such standardization, larger departments, like the CKFR, are often required to supplement these materials with lessons related to specific departmental policies and procedures.

There are some differences between these two models, however both provide a practical path to NPFA Pro-Qual certification. Both would also require including departmental-specific information (such as departmental policies and procedures).

In our experience, fire departments like the CKFR who utilize both career and volunteer firefighters have found that developing an in-house training program provides greater

flexibility with respect to scheduling (particularly for volunteers), and reducing the potential additional costs associated with overtime, backfilling, and travel time.

Although both options identified above are viable for the CKFR it is our understanding that the CKFR is in the process of enhancing its existing firefighter training to include the capability for conducting in-house NPFA Pro-Qual certification. This currently includes the in-house delivery of NFPA 1001 (Level I and Level II), NFPA 1041, NFPA 1021 and NFPA 1521. The CKFR is also increasing the scope of its in-house certifications. Based on our analysis, we support the department's chosen approach. We recommend that in developing the in-house NPFA Pro-Qual certification program that the CKFR consult with neighbouring fire departments. O. Reg. 343/22 requires all municipalities in Ontario comply with this new legislation. Therefore, through consultation further synergies, partnerships or cost sharing opportunities may be identified.

Recommendation 8: That the CKFR continue to enhance its current Firefighter Training Program to include an 'In-House Certification' process to provide the required NFPA Pro-Qual Certification of all career and volunteer firefighters as required by Ontario Regulation 343/22 – Firefighter Certification.

7.2 Existing Training and Safety Division Staff Resources

The existing staff resources assigned to this Division include two career Training Officers (TO). Both TO report to the Assistant Chief – Training and Safety. The utilization of career TO is a relatively new staffing model for the CKFR that was first initiated in 2009 with the hiring of the first full-time TO. The second TO was hired in 2018. As a result, in our view there are still misconceptions throughout the department regarding the roles and responsibilities of these positions, as well as many examples of inconsistencies in the current firefighter training that in our view may relate back to pre-amalgamation.

7.2.1 Training Officers (Career)

The TO are responsible and accountable for performing functions and duties related to the planning, delivery, maintenance, and evaluation of all existing fire suppression training initiatives. This includes the design and development of training programs and the provision of any required training aids. The TO are also responsible for the safe and efficient implementation of corporate policies and departmental operating guidelines and procedures. Both of the current TO are certified to the NFPA 1041 Standard for Fire

and Emergency Services Instructor Professional Qualifications Level II. Examples of the roles and responsibilities of these positions also include:

- Instruct fire service personnel in all phases of the fire department operations.
- Formulate standard methods, including pre-instruction planning and evaluation.
- Assist Fire Operations Officers with the instruction and evaluation of all CKFR firefighting personnel and with daily training activities.
- Prepare training programs and observe training sessions, such as, but not limited to, firefighter, fire officer, fire inspector, fire investigator, public education and prevention, rescue and extrication, emergency first aid, responses to hazardous materials spills or leaks, industrial firefighter programs, as well as other specialty courses.
- Assist with the development of practical training safety plans.
- Develop recruit firefighter training programs.
- Develop a training syllabus for the Fire Operations Group that includes comprehensive lesson plans.
- Develop a Fire Officer Training Program for CKFR.
- Assist with the CKFR promotional process as required in conformance with existing agreements and policies.
- Evaluate the performance of training participants.
- Ensure that all required certifications are maintained.
- Ensure that all operations staff members maintain their certifications.
- Deliver lectures, demonstrations, and other learning activities or methods.
- Be responsible and accountable for knowing and working in accordance with the department's health and safety policies.
- Demonstrate and promote professionalism; integrates values and ethics; addresses breaches in values, ethics, and conduct.

7.2.2 Administrative Support

This division does not currently have dedicated administrative support. As a result, the two TO are required to complete a significant amount of administrative work that could be delegated to an Administrative Assistant. Examples include, the process required to

review and upload individual training records into the records management system, developing and updating training schedules and preparing training lesson plans.

Administrative support for this division will be discussed further in the proposed department organizational structure and supporting staff resource strategy presented within this FMP.

7.3 Existing (Career and Volunteer) Fire Suppression Training

The internal stakeholder consultations, including the surveys provided to the career and volunteer firefighters, and our review of training information provided by the department confirms the following. The delivery of a comprehensive training program to all firefighters (career and volunteer) is one of the most challenging tasks facing the CKFR. This challenge is consistent with most fire departments across the country, and specifically with those utilizing both career and volunteer firefighters.

This section will present an overview of the current fire suppression training initiatives that the CKFR has developed and is currently utilizing.

7.3.1 Career Firefighter Training Syllabus - 2023

The career firefighter training syllabus was developed by the two TO in consultation with the Assistant Chief -Training and Safety. This syllabus provides an overview of the annual firefighter training objectives for all career firefighters for 2023. This syllabus prioritizes the skills and competencies of the NFPA 1001 Standard. The syllabus includes all of the required lesson plans, presentations, applicable OHSA firefighter guidance notes, and applicable department operating guidelines and procedures to facilitate delivery of the identified training.

This syllabus has been developed as a tool to support the delivery of the specified training by the Senior Career Captains and Captains to train the career firefighters under their direct command (crew). The syllabus provides some flexibility to the Senior Career Captains and Captains to identify what training may be delivered on a certain day, due to weather conditions, or other circumstances, however the syllabus clearly indicates that all identified training must be completed by the end of the calendar year. The syllabus also identifies the required training safety plans and training records that must also be utilized.

This syllabus also identifies additional training programs that will be delivered directly to career firefighters by the TO such as ice/cold water rescue, boat operations, command and officer training, rapid intervention teams and first aid.

Based on our experience in working with fire departments across the country the 2023 'career firefighter training syllabus' represents an example of current industry best practices. Within the fire service, fire suppression career captains (Company Officers) have a responsibility to ensure that the career firefighters under their command have attained the required skills and competencies to complete the tasks they are assigned. Career captains are defined by the OHSA as a "supervisor means a person who has charge of a workplace or authority over a worker"[28]. In our view the 2023 'career firefighter training syllabus' is an appropriate training resource for the career captains to train and assess the basic skills and competencies of the career firefighters they are directly responsible for.

7.3.2 Volunteer Firefighter Training Syllabus – 2023

This training syllabus follows the same format as provided to the career firefighters to train to the essential skills required in the NFPA 1001 Standard. The responsibility to train the volunteer firefighters is identified as the Volunteer Station Chiefs, Volunteer Deputy Station Chiefs and Volunteer Captains. It is important to note that all of these positions are also identified as 'Company Officers' and also designated as 'supervisors' under the OHSA. The Volunteer Firefighter Training Syllabus also identifies the position of 'Trainer Facilitators' who are also volunteer firefighters qualified to deliver specific firefighter training initiatives.

The use of 'Trainer Facilitators' is a common practice within the fire service. Trainer Facilitators are typical trained through a 'train-the-trainer' process whereby the 'trainer facilitators' are qualified/certified to deliver a specific type of training (e.g., pump operations, aerial ladder operations, or technical rescue training such as ice/water rescue). In our experience the 'train-the-trainer' process is an effective strategy to facilitate the delivery of training to both career and volunteer firefighters.

[28] Occupational Health and Safety Act, R.S.O. 1990, c. O.1 Definitions 1 (1) In this Act.

This syllabus also identifies the required training safety plans and training records that must also be utilized and identifies the specific training that will be delivered directly by the TO. In 2023 this includes the applicable training for the NFPA 1041 – Fire Instructor Level 1, NFPA 1021 – Fire Officer Level 1 and the NFPA 1521 Incident Safety Officer.

In our view the 2023 volunteer firefighter training syllabus is also an appropriate training resource for the Volunteer Company Officers to train and assess the basic skills and competencies of the volunteer firefighters they are directly responsible for.

7.3.3 Auxiliary Firefighter Training Program

The current Auxiliary Firefighter Training Program delivers the training for a candidate to attain their NFPA 1001 – Level I and II firefighter certification, and NFPA 1072 Hazardous Materials - Operations Level training. This is a comprehensive program that takes the commitment of the candidates, and the training resources for one weekend a month for 14 months to complete. The internal stakeholder consultation process identified a number of concerns related to the length and time commitment required to complete this program. In our view the time commitment of the candidates and the training resources must be balanced with the outcome of the program. The current outcome is consistent with the mandatory requirements of the new O. Reg. 343/22 – Firefighter Certification.

It is our understanding that the CKFR is currently reviewing this program. We also understand that the department has been considering strategies to update this program, such as allowing the candidates to respond to emergency incidents with assigned limitations, and increasing the scope of the on-line theory-based learning that may support a shorter overall program length.

Once completed the candidates complete the required provincial testing provided by the AS&E Division of the OFM and receive their IFSAC and ProBoard mandatory certification as required by O. Reg. 343/22 – Firefighter Certification.

7.3.4 Operational Playbook

The CKFR Training Division has created a unique ‘operational playbook’ that can be utilized by career and volunteer firefighters to simulate a response to specific types of building occupancies and emergency incidents. This is a comprehensive training tool

aimed at identifying possible strategies and tactics that may be applied in responding to different types of incidents.

This document also identifies the roles and responsibilities of responding fire suppression staff such as the first arriving officer, firefighters, and additional arriving apparatus.

7.3.5 Company Officer Program

The Training Division has developed a Company Officer Program to prepare participating Company Officers (career and volunteer) to qualify for the NFPA 1021 -Standard for Fire Officer Professional Qualifications: Fire Officer Level I. This program qualifies the participants to this NFPA standard and includes the certification testing required by the mandatory component of the new O. Reg. 343/22 – Firefighter Certification. At the time of preparing this FMP, 106 members of the CKFR have attained their NFPA 1021 – Level I certification.

7.3.6 Fire Service Instructor Program

The Training Division has also developed a Fire Service Instructor Program to prepare participants to qualify to the NFPA 1041 -Standard for Fire Service Instructor Professional Qualifications. This program includes the certification testing required by the mandatory component of the new O. Reg. 343/22 – Firefighter Certification. At the time of preparing this FMP 112 members of CKFR have attained their NFPA 1041 – Level I certification.

7.3.7 Incident Command Training

The OHSA Firefighter Guidance Note 2-1 Incident Command identifies that “an effective incident command system has a dramatic effect on the efficiency, effectiveness of response and firefighter safety in all situations”[29]. This guidance note includes actions for employers that indicate all employers should:

[29] OHSA Firefighter Guidance Note 2-1 Incident Command, Background.

- Train all personnel in incident command;
- Develop and implement an incident command system supported by operational guidelines, training, post incident analyses and regular review and revision;
- Implement the key concepts of crew accountability, safety officers, sectoring, and crew rotation to increase firefighter safety; and
- Require use of an incident command system during all incidents.

The CKFR has developed several department operating guidelines relating to incident command. However, our review of these department guidelines indicates that they were all implemented prior to this OHSA Firefighters Guidance Note being initially published on February 19, 2019. In our view, the CKFR should prioritize the updating and consolidation of all current department operating guidelines related to incident command.

7.3.8 Live Fire Training

The purpose of live fire training is to provide realistic fire simulations under controlled conditions allowing for safe fire suppression training on a regular basis. Live fire training ensures that all firefighters (career and volunteer) maintain their skill sets and have sufficient exposure to the conditions that a firefighter may encounter in real life, including simulated heat, humidity, restricted vision, and smoke conditions. This type of training also enhances the understanding of fire behaviour and smoke conditions in certain environments as they may relate to conditions such as 'flashover'.

Live fire training is currently only provided as a component of the 'Auxiliary Firefighter Training Program'. Candidates in this program travel to the Lambton College Fire School campus to complete their required live fire training. The CKFR does not currently have direct access to a structure capable of live fire training.

Based on our experience this is an existing gap in the current CKFR fire suppression training program for the career and volunteer firefighters. Live fire training is especially pertinent to fire departments like the CKFR where many of the fire stations and assigned firefighters have few fire-related calls.

Recommendation 9: That consideration be given to implementing a strategy to provide access to live fire training on an annual basis for all career and volunteer firefighters.

7.3.9 On-Line Training

The CKFR has implemented on-line training to support the delivery of their training initiatives. In our experience, the utilization of online training tools has been a challenge for many fire departments, specifically fire departments utilizing volunteer firefighters. The degree of proficiency in the utilization of computers, software programs and on-line educational programs can vary significantly in a fire department the size of the CKFR. On-line training can be an effective tool for delivering theory-based learning within the fire service. The utilization of on-line training can also be a successful tool for accommodating the varying learning speeds of participants in a large group, or though individual participation. Further consideration of the utilization of on-line training should be considered by the CKFR. Further utilization of individual access to on-line training may also be an effective strategy to reduce the current schedule of the Auxiliary Firefighter Training Program.

7.4 Technical Rescue Training

Specialized rescue training includes training for 'technical rescue' skills and competencies related to emergency incidents such as: automobile extrication, hazardous materials incidents, structural collapse, confined space rescues, trench rescues, and ice/water rescues. The NFPA 1006 – Standard for Technical Rescue Personnel Professional Qualifications (2021 edition) identifies three operational levels of training for responding to incidents involving technical rescues including:

- **Awareness Level:** This level represents the minimum capability of individuals who respond to technical search and rescue incidents.
- **Operations Level:** This level represents the capability of individuals to respond to technical search and rescue incidents and to identify hazards, use equipment, and apply limited techniques specified in this standard to support and participate in technical search and rescue incidents.
- **Technician Level:** This level represents the capability of individuals to respond to technical search and rescue incidents and to identify hazards, use equipment, and apply advanced techniques specified in this standard necessary to coordinate, perform, and supervise technical search and rescue incidents.

The research to prepare this FMP, including internal stakeholder consultation and data collection, identified that the CKFR currently provides training and responds to the technical rescue incidents presented in **Table 11** below.

Table 12: Existing Technical Rescue Training

Technical Rescue Response	Existing Level of CKFR Training
Automobile Extrication	NFPA 1006 – Operations Level
Ice/Water Rescue	Varying Levels of Training
Hazardous Materials Response	NFPA 1006 – Awareness level

The current E&R By-Law No 292-2004 identifies a number of 'Technical Rescues' that the CKFR is currently authorized to respond to. These include:

- Hazardous Materials Incidents;
- Extrication and Rescue;
- Water Based Rescue;
- Dive Rescue and Recovery (discontinued at the time of preparing this FMP); and
- Shore Based Ice Rescue.

The recently completed CRA identified the following 'identified risks' and 'key findings' directly related to technical rescue training and response including:

- Motor vehicle-related incidents on the existing road network represent 12.7% of the historical emergency responses of CKFR.
- The bluffs along Chatham-Kent's Lake Erie shoreline present a risk associated with residents and visitors participating in activities that may require specialized rescue services (e.g., high angle rope rescue).
- The presence of waterways within and surrounding Chatham-Kent creates a potential need for specialized technical ice and water rescue services.
- There are roads within the Municipality that have been identified as hazardous material routes that may require hazardous materials response.
- Silos and grain elevators in the municipality may require specialized rescue and present unique hazards during an emergency call.

In our view the analysis presented above supports the need for the CKFR to update the current E&R By-law No 292-2004, and to revise the current technical rescue training for

the career and volunteer firefighters that aligns with the CRA 'identified risks' and 'key findings'. In our view this includes consideration of the strategies identified in the sub-sections below.

7.4.1 Technical Rescue Awareness Training

In our experience fire departments respond when they are requested. Regardless of existing emergency response protocols, policies, or procedures when a 911 emergency call is received fire departments will inevitably be the first responders on scene. Therefore, it is important due diligence on behalf of a municipality (employer) to ensure that all responding firefighters (career or volunteer) are at a minimum trained to a level of awareness to recognize the hazards and risks that may be present at an incident. One of the primary reasons for conducting the CRA is to identify the hazards that may be present in a municipality. The recently completed CRA for Chatham-Kent has identified the potential for incidents to occur in the municipality that would require a defined technical rescue.

In our view the CKFR should ensure that all career and volunteer firefighters are trained at a minimum to an NFPA 1006 Standard 'awareness level' for all identified incidents that may require a technical rescue. Based on the findings of the CRA this would include incidents related to:

- Motor vehicle collisions requiring an extrication;
- Incidents where the use of ropes is required to complete a rescue including incidents where either high or low angle rope rescues may be required;
- Incidents where water is present including winter conditions when ice may also be present, and a rescue may be required;
- Incidents where hazardous materials may be present; and
- Incidents where silos are present.

The objective of this awareness training should be to ensure that all career and volunteer firefighters are able to recognize the life safety risks that may be present, and not to engage in any form of rescue that they are not qualified to complete.

Recommendation 10: That the CKFR review the findings of the Community Risk Assessment to determine the applicable technical rescue 'awareness training' that should be provided to all career and volunteer firefighters.

7.4.2 Proposed Technical Rescue Training/Response Strategy

The CRA has identified several types of incidents where a technical rescue may be required. In our view the first step in developing an updated Technical Rescue Training/Response Strategy is to ensure that all firefighters are able to recognize these types of incidents. As referenced in the previous section this should include providing the applicable technical rescue 'awareness level' training to all career and volunteer firefighters. In our view the second step should be to consider the probability, or frequency of these types of incidents occurring in the Municipality, and the third step should be to consider whether training all firefighters (career and volunteer) to conduct these types of rescues is a feasible and sustainable strategy.

7.4.2.1 Automobile Extrication

The CRA identified that motor vehicle-related incidents on the existing road network represent 12.7% of the total historical emergency call volume of the CKFR. As the community continues to grow, including more vehicle traffic, it should be anticipated that this volume of incidents will also increase. In our view this identified risk warrants that all career and volunteer firefighters continue to be trained to the NFPA 1006 'operations level' for automobile extrication. This level of automobile extrication training is required by O. Reg. 343/22 Firefighter Certification.

The CKFR also responds to a number of provincial highways including the 401 where high speed, and larger vehicles such as transport trucks and bulk carriers are common. Larger vehicles and associated higher weights and speeds can result in the need for more advanced extrication techniques and equipment. These types of incidents may warrant the need to consider the NFPA 1006 'technician level' training for responding firefighters.

The proposed technical rescue training/response strategy included in **Section 7.4.2.7** identifies the training and emergency response protocols for automobile extrication.

7.4.2.2 High/Low Angle Rope Rescue

The identified areas of the municipality, such as the bluffs along Chatham-Kent's Lake Erie shoreline, present a risk associated with residents and visitors participating in activities that may require specialized rescue services, such as a high angle rope rescue. The need for high/low angle rope rescue can be associated with a wider range of

incident types than what was highlighted by the CRA. High/low angle rope rescues included any type of incident where ropes are required for a firefighter to gain access to a point above or below grade.

In our view the provision of high/low angle rope rescue, although warranted given the risk present, may not be a feasible or sustainable strategy for the training of all firefighters (career and volunteer).

The proposed technical rescue training/response strategy includes proposed training and emergency response protocols for high/low level rope rescue.

7.4.2.3 Ice/Water Rescue

Ice-water rescue services have been the subject of much discussion within the fire service as a result of a May 2017 Coroner's inquest into the death of two firefighters during training exercises. This inquest recommended that all ice/cold swift water rescue services training be put in abeyance until such time as the recommendations of the jury were addressed. The findings of the inquest highlight the need for stringent training requirements for firefighters to facilitate any type of rescue where water or ice is present.

Information provided to fire departments across the Province by the OFM through Communique 2017-06, dated October 10, 2017, which encouraged municipalities to assess their delivery of these types of specialized rescue services and specifically their respective Establishing and Regulating By-law to ensure the fire department is authorized to provide these services. The presence of these elements identifies conditions that warrant very careful consideration of the services provided by any fire department.

The CRA identified the presence of waterways within and surrounding Chatham-Kent as a potential need for specialized technical ice and water rescue services. The current E&R By-Law No 292-2004 authorizes the CKFR to conduct water-based rescue, dive rescue and recovery, and shore-based ice rescue. In our view the CKFR needs to give further detailed investigation into the need to sustain this range of ice/water rescue services, and specifically sustaining any form of dive rescue and recovery, and ice/water rescue where the rescuers (firefighters) are not tethered to land.

The proposed technical rescue training/response strategy included in **Section 7.4.2.7** identifies the training and emergency response protocols for ice/water rescue.

7.4.2.4 Hazardous Materials Response

The CRA identified that there are multiple roads within the Municipality that have been identified as hazardous material routes that may require hazardous materials response. The Municipality also contains multiple rail lines which provide for the transportation of hazardous materials. However, in these instances the transportation of dangerous goods is regulated by the Transportation of Dangerous Goods Act, 1992. This regulation requires that carriers provide for emergency response capabilities.

On June 1, 2022, the Municipality of Chatham-Kent and the City of Windsor signed a Hazardous Materials Response Agreement that includes the Windsor Fire and Rescue Services deploying a Hazardous Materials Response Team when requested by Chatham-Kent. This agreement includes the deployment of a minimum of two NFPA 1072-Technician Level and two NFPA 1072-Operations Level certified firefighters accompanied by a Chief Officer. This agreement provides Chatham-Kent with access to fire suppression staff with the highest level of the NFPA 1072 training and certification to support the CKFR in responding and managing hazardous material incidents.

The proposed technical rescue training/response strategy included in **Section 7.4.2.7** identifies the training and emergency response protocols for responding to hazardous materials incidents, and it supports sustaining the current agreement with the Windsor Fire and Rescue Services.

7.4.2.5 Silo/Farm/Wind Rescue

The CRA identified the presence of silos, grain elevators, and wind turbines in the Municipality where technical rescues may be required. Silos, grain elevators, wind turbines and farm machinery present unique challenges to responding firefighters. These types of incidents are not common, but do require the consideration of pre-planning and awareness of the unique risks that may be present. Responding to rescues related to these types of structures and machinery may require a high degree of technical training in other related training disciplines such as high/low rope rescue and automobile/heavy vehicle extrication.

The proposed technical rescue training/response strategy included in **Section 7.4.2.7** identifies the training and emergency response protocols for silo, farm, and wind turbine rescues.

7.4.2.6 Confined Space/Trench Rescue

The NFPA 1006 Standard defines a 'confined space' as "An area large enough and so configured that a member can bodily enter and perform assigned work, but which has limited or restricted means for access and egress and is not designed for continuous human occupancy"[30]. This standard defines a 'Trench/Trench Excavation' as "An excavation, narrow in relation to its length, made below the surface of the earth"[31]. These types or areas are commonly associated with construction sites, utility manholes, and storm water sewer systems. These are only a small number of examples of these areas that can be found in Chatham-Kent. These areas represent other potential areas where firefighters may be faced with highly technical rescue incidents.

The proposed technical rescue training/response strategy included in **Section 7.4.2.7** identifies the training and emergency response protocols for confined space/trench rescues.

7.4.2.7 Proposed Technical Rescue Training/Response Strategy

With the exception of automobile extrications, the remainder of the identified technical rescues have a low frequency of occurring but can present a significant level of risk to the community and to responding firefighters. The new O. Reg. 343/22 – Firefighter Certification also requires the mandatory training of all firefighters (career and volunteer) who may be directly involved in responding to these incidents and facilitating a rescue or mitigation.

Based on our research and internal stakeholder consultation with senior CKFR staff and our review of the results of the career and volunteer firefighter surveys, there is an identified need for the CKFR to reconsider all of its current technical rescue training and

[30] NFPA 1006 – Standard for Technical Rescue Personnel Professional Qualifications, Chapter 3 Definitions, 3.3.29* Confined Space.

[31] NFPA 1006 – Standard for Technical Rescue Personnel Professional Qualifications, Chapter 3 Definitions, 3.3.206 Trench/Trench Excavation.

response protocols. There is an identified need for the volunteer firefighters to prioritize basic firefighting including interior attack and auto extrication training. This strategy is consistent with the recent 'legacy applications' that were approved for CKFR by the OFM, and as required by the new O. Reg. 343/22-Firefighter Certification. The volunteer firefighters simply do not have sufficient time available to train to the mandatory certification requirements for technical rescues as required by O. Reg. 343/22-Firefighter Certification.

In our view the CKFR should consider developing a 'Technical Rescue Team' primarily consisting of career firefighters. There may be some volunteer firefighters who have a strong personal interest in this type of training, or pre-existing training and applicable certification that should also be considered. **Table 13** presents the type of technical rescue response, existing level of training, proposed level of training/certification for all career and volunteer firefighters for technical rescues, and the proposed 'Technical Rescue Team' level of training. The proposed 'Technical Rescue Team' training/ certifications represent the highest level of the NFPA 1006 – Standard. In our view this strategy represent a department objective that will need to be reviewed in response to the findings of future CRA, and the ability of the proposed team to attain this high degree of skills and competencies in each type of technical rescue response.

Table 13: Proposed Technical Rescue/Response Training/Certifications

Technical Rescue Response	Existing Level of CKFR Training	All Career and Volunteer Firefighters	Proposed Technical Rescue Team
Automobile Extrication	NFPA 1006 – Operations Level	NFPA 1006 – Operations Level	NFPA 1006 – Technician Level
High/Low Angle Rope Rescue	Not Applicable	NFPA 1006 – Awareness Level	NFPA 1006 – Technician Level
Ice/Water Rescue	Varying Levels of Training	NFPA 1006 – Awareness Level	NFPA 1006 – Technician Level
Hazardous Materials Response	NFPA 1006 – Awareness Level	NFPA 1006 – Awareness Level	NFPA 1006 – Technician Level
Silo/Farm/Wind Rescue	Not Applicable	NFPA 1006 – Awareness Level	NFPA 1006 – Technician Level
Confined Space/ Trench Rescue	Not Applicable	NFPA 1006 – Awareness Level	NFPA 1006 – Technician Level

Recommendation 11: That the CKFR consider revisions to its current technical rescue training and response to comply with the mandatory requirements of O. Reg. 343/22- Firefighter Certification, and the implementation of the proposed Technical Rescue Team.

7.4.3 Technical Rescue Training Summary

The introduction of O. Reg. 343/22 – Firefighter Certification requires a much higher commitment to attaining and sustaining the mandatory training required to deliver identified technical rescues. The CRA has identified a number of 'identified risks' and 'key findings' that warrant the CKFR continuing to deliver technical rescue services. With the exception of automobile extrication, it is our view that the volunteer firefighters should only be certified in the future to an 'awareness level' of technical rescue training in all other areas.

In our view developing a 'technical rescue team' as presented within the proposed FMP would provide a more effective and sustainable emergency response model for technical rescues to be provided by the CKFR.

7.4.4 Training and Safety Division Staff Resources

In our view there is an identified need to increase the number of career Training Officers and to develop and implement a more comprehensive administrative support strategy for this Division. There is also a need to develop and implement a revised organizational structure for the 'Operations Division' that provides a more defined structure for the delivery of training and fire suppression services.

7.5 Training and Safety Division Summary

Analysis of the CKFR existing career and volunteer fire suppression training programs and initiatives indicate the achievement of current industry best practices in many areas. In our view the CKFR has developed a solid foundation for transitioning to the required O. Reg. 343/22 - Firefighter Certification mandatory training certifications.

The internal stakeholder consultation process, including interviews with department senior staff, and feedback from the career and volunteer firefighter surveys, indicates significant challenges facing the efficiency and effectiveness of the CKFR include department culture, roles and responsibilities and mandatory certification.

In our view there are existing cultural differences within the CKFR that relate back to pre-amalgamation, and in part relate to a perceived, or real view that stations and staff resources can continue to operate 'as they always have'. The proposed 'strategic priorities' presented within this FMP specifically refer to the 'recognition of the historical commitment of those who have dedicated their services to the community in the past'. Subject to Councils approval the CKFR is going to become a fully integrated, composite fire service operating model.

In our view the identified culture differences also relate to a perceived, or real view that the career and volunteer firefighters are in some way different. This may relate to individual or broader experiences, however, the implementation of the mandatory training certification of all firefighters contained in O. Reg. 343/22 – Firefighter Certification requires firefighters, career, and volunteer to overcome the existing cultural differences.

Based on our research, there is an identified need for some members of the CKFR to recognize and accept their individual roles and responsibilities as well as those of their position (rank) within the CKFR. Transitioning to a fully integrated, composite fire service operating model will result in safer community to live and work. This includes a safer workplace for all career and volunteer firefighters. This FMP includes a proposed organizational structure and staff resource strategy that will identify and clearly define the roles and responsibilities for delivering training.

All CKFR staff including career and volunteer firefighters need to recognize and/or accept the fact that by July 1, 2026, 'all firefighters' regardless of being career or volunteer, will be required to have attained the mandatory certifications included in O. Reg. 343/22 – Firefighter Certification. All firefighters need to recognize and/or accept the fact the Municipality of Chatham-Kent does not have a choice in implementing a firefighter training program that supports the achievement of the mandatory training requirements of O. Reg. 343/22 – Firefighter Certification, it is a legislative responsibility of the municipality. All firefighters need to recognize and/or accept the fact that if they do not attain the mandatory training requirements of O. Reg. 343/22 – Firefighter Certification by July 1, 2026, the Municipality will no longer be able to allow them to participate in delivering the applicable fire protection services.

The following is a summary of the recommendations for Training and Safety Division.

8. That the CKFR continue to enhance its current Firefighter Training Program to include an 'In-House Certification' process to provide the required NFPA Pro-Qual Certification of all career and volunteer firefighters as required by Ontario Regulation 343/22 – Firefighter Certification.
9. That consideration be given to implementing a strategy to provide access to live fire training on an annual basis for all career and volunteer firefighters.
10. That the CKFR review the findings of the Community Risk Assessment to determine the applicable technical rescue 'awareness training' that should be provided to all career and volunteer firefighters.
11. That the CKFR consider revisions to its current technical rescue training and response to comply with the mandatory requirements of O. Reg. 343/22 – Firefighter Certification, and the implementation of the proposed Technical Rescue Team.

8.0 Operations Division

To comply with the FPPA, 1997, the Municipality of Chatham-Kent is required to **"***provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances*"[32] which includes making informed decisions regarding the level of fire suppression services to be provided.

Consistent with O. Reg. 378/18: a Community Risk Assessment was developed to assist Council in this decision-making process and specifically requires that Council "use its community risk assessment to inform decisions about the provision of fire protection services"[33] including the level of fire suppression services to be provided.

The delivery of fire suppression services is recognized by the OFM as the 'Third Line of Defense' strategy. This strategy recognizes that "due to a variety of influences, not all communities are capable of, or should consider delivering the same level of service"[34]. To assist Council in the decision-making process regarding the level of fire suppression services to be provided within Chatham-Kent the methodology presented within this section considers the 'identified risks' and 'key findings' presented in the companion Community Risk Assessment.

8.1 Fire Suppression Guidelines and Standards

Within Ontario, there is no specific legislated standard that a community must achieve with regard to the type of firefighter (e.g., career or volunteer), number of firefighters, number of fire stations or the level of fire suppression services that must be provided. As referenced in the previous section of this plan the FPPA requires that establishing the level of fire suppression services within the municipality is the role of the municipal Council.

Over the past decade there has been a transition within the fire service industry across North America to the utilization of community risk-based analysis. Community risk-

[32] Fire Protection and Prevention Act, 1997, Part II Responsibility for Fire Protection Services, Municipal Responsibilities, Section 2. (1) (b).

[33] Ontario Regulation 378/18 Community Risk Assessments, Mandatory Use, Part 1 (B).

[34] Office of the Fire Marshal, Public Fire Safety Guideline 04-01-12 Selecting Fire Suppression Capability.

based analysis is used to determine the appropriate level of firefighter deployment based on the critical tasks to be performed to conduct fire suppression operations effectively, efficiently, and safely.

To assist municipal councils in this decision-making process the FPPA assigns powers to the OFM that include responsibilities "to issue guidelines to municipalities respecting fire protection services and related matters". The OFM complies with this requirement through the issuance of Public Fire Safety Guidelines (PFSG), Fire Marshal's Directives, Technical Guidelines, Communiques, and other forms of communication. At this time all PFSG are under review but have been authorized by the OFM for continued use for reference purposes. Where applicable PFSG have been utilized within this FMP to inform the analysis and to provide supporting reference documents.

8.1.1 PFSG 04-08-10 Operational Planning: An Official Guide to Matching Resource Deployment and Risk

PFSG 04-08-10 – Operational Planning: An Official Guide to Matching Resource Deployment and Risk was released by the OFM in January 2011 and includes a Critical Task Matrix (CTM) to assist municipalities in determining the level of fire ground staffing capabilities based upon low, moderate, high and extreme risks. The CTM is defined by the OFM as "The Critical Task Matrix is based on the Incident Management System (IMS). It will assist in identifying fire ground staffing capabilities based upon low, moderate, high, and extreme risk levels within your community. These tasks are consistent with applicable legislation, industry best practices and the Ontario Fire College Curriculum"[35].

8.1.2 NFPA 1710 and 1720 Standard (2020 Edition)

The NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments (2020 Edition) provides fire suppression staffing performance

[35] "Operational Planning: An Official Guide to Matching Resource Deployment and Risk Workbook," Ministry of the Solicitor General Website, Last Modified: May 5, 2017, http://www.mcscs.jus.gov.on.ca/english/FireMarshal/FireServiceResources/PublicFireSafetyGuidelines/04-08-10at1.html

objectives for municipalities that utilize career (full-time) station-based firefighters. This standard defines a 'career fire department' as "A fire department that utilizes full-time or full-time equivalent (FTE) station-based personnel immediately available to comprise at least 50 percent of an initial full alarm"[36].

The 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 (2020 Edition) provides fire suppression staffing performance objectives for municipalities that utilize volunteer or combination fire departments. This standard defines a combination fire department as "A fire department having emergency service personnel comprising less than 85 percent majority of either volunteer or career membership"[37]. This standard defines a volunteer fire department as "A fire department having volunteer emergency service personnel comprising 85 percent or greater of its department membership"[38]

The CKFR currently includes a total complement of 65 career firefighters and 351[39] volunteer firefighters. Based on this current distribution of career and volunteer firefighters the CKFR is defined as a 'combination fire department' or 'composite fire department'. This analysis indicates that the NFPA 1720 Standard is the applicable standard for assessing the current fire suppression services being provided by the CKFR. Therefore, the following analysis will apply the staffing and response time performance objectives of the NFPA 1720 Standard illustrated in **Table** 14.

[36] NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments (2020 Edition), Chapter 3 Definitions, 3.3.13 Career Fire Department.

[37] 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 (2020 Edition), Chapter 3 Definitions, 3.3.16.1 Combination Fire Department.

[38] 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 (2020 Edition), Chapter 3 Definitions, 3.3.16* Volunteer Fire Department.

[39] Current Council approved total complement of volunteer firefighters.

Table 14: NFPA 1720 Staffing and Response Time[40]

Demand Zones	Demographics	Minimum Staff to Respond	Response Time (minutes)	Meets Objective
Urban	>1,000 people/mi^2[41] (>2,600 people/km^2[42])	15	9	90%
Suburban	500 to 1,000 people/mi^2 (1,300 to 2,600 people/km^2)	10	10	80%
Rural Area	<500 people/mi^2 (<1,300 people/km^2)	6	14	80%
Remote	Travel distance >8 miles (>12.87 kilometres)	4	Dependent on travel distance	90%
Special Risks	Determined by AHJ	Determined by AHJ based on risk	Determined by AHJ	90%

The NFPA 1720 Standard recognizes that a municipality may have more than one type of Demand Zone (e.g., rural and urban) as defined by demographics, and identifies alternative minimum staffing and response time objectives for each. The application of multiple Demand Zones is up to the AHJ[43].

An examination of the demographic characteristics of Chatham-Kent, as measured by population density, indicates that the municipality has a population density of 107 people per square mile (277 people per square kilometre), which would indicate that the rural standard could apply. However, Chatham-Kent is a very large municipality due to amalgamation, incorporating a very large rural area, with pockets of more built-up areas. The largest and most dense urban pocket is the community of Chatham with a

40 1 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 (2020 Edition).

41 Mi^2 – Square miles

42 Km^2 – Square Kilometres

43 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 (2020 Edition), Chapter 3 Definitions, 3.22* Authority Having Jurisdiction.

population density of 3,597 people per square mile (9,316 people per square kilometre). For the purpose of defining Demand Zones for applying NFPA 1720 Standard, we have defined Chatham as an Urban Demand Zone and the rest of the municipality of as a Rural Demand Zone.

The minimum staffing and response time objectives are therefore:

- **Urban Demand Zone (Chatham)**: 15 firefighters responding in nine minutes of response time (turnout time plus travel time), 90% of the time.
- **Rural Demand Zone (Remainder of the Municipality)**: Six firefighters responding in 14 minutes of response time (turnout time plus travel time), 80% of the time.

The NFPA 1720 standard further supports initial response staffing to include four firefighters; "Initial firefighting operations shall be organized to ensure that at least four fire fighters are assembled before interior fire suppression operations are initiated in a hazardous area"[44]**.** This particular standard recognizes that the four firefighters may not arrive on the same vehicle, but that there must be four on the scene prior to initiating any type of interior firefighting operations.

Recommendation 12: That the Municipality of Chatham-Kent adopt the proposed fire suppression performance objectives presented within the NFPA 1720 Standard including:

- **Urban Demand Zone (Chatham)** – 15 firefighters arriving on scene within a nine-minute turnout time plus travel time (to 90% of fire suppression incidents).
- **Rural Demand Zone (Remainder of the Municipality)** – six firefighters arriving on scene within a 14-minute turnout time plus travel time (to 80% of fire suppression incidents).

8.2 Importance of Time with Respect to Fire Growth

Understanding how a fire grows from the time of ignition is a critical element of assessing a municipality's fire protection program including the application of the "three

[44] 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 (2020 Edition), Chapter 4 Organization, Operation, and Deployment, 4.6 Initial Firefighting Operations, 4.6.1.

lines of defense". Research conducted by the OFM and National Research Council of Canada indicates that a fire in a non-sprinklered residential occupancy can spread from the room where the fire originates in ten minutes or less. Tests have shown that the fire can extend from the room of origin in as little as three minutes, under fast fire growth conditions.

Fire growth rates, defined by the Society of Fire Protection Engineers as slow, medium, and fast, are listed in **Table 15**. The fire growth rates are measured by the time it takes for a fire to reach a one-megawatt (MW) fire. This is roughly equivalent to an upholstered chair burning at its peak. A two MW fire is approximately equal to a large, upholstered sofa burning at its peak.

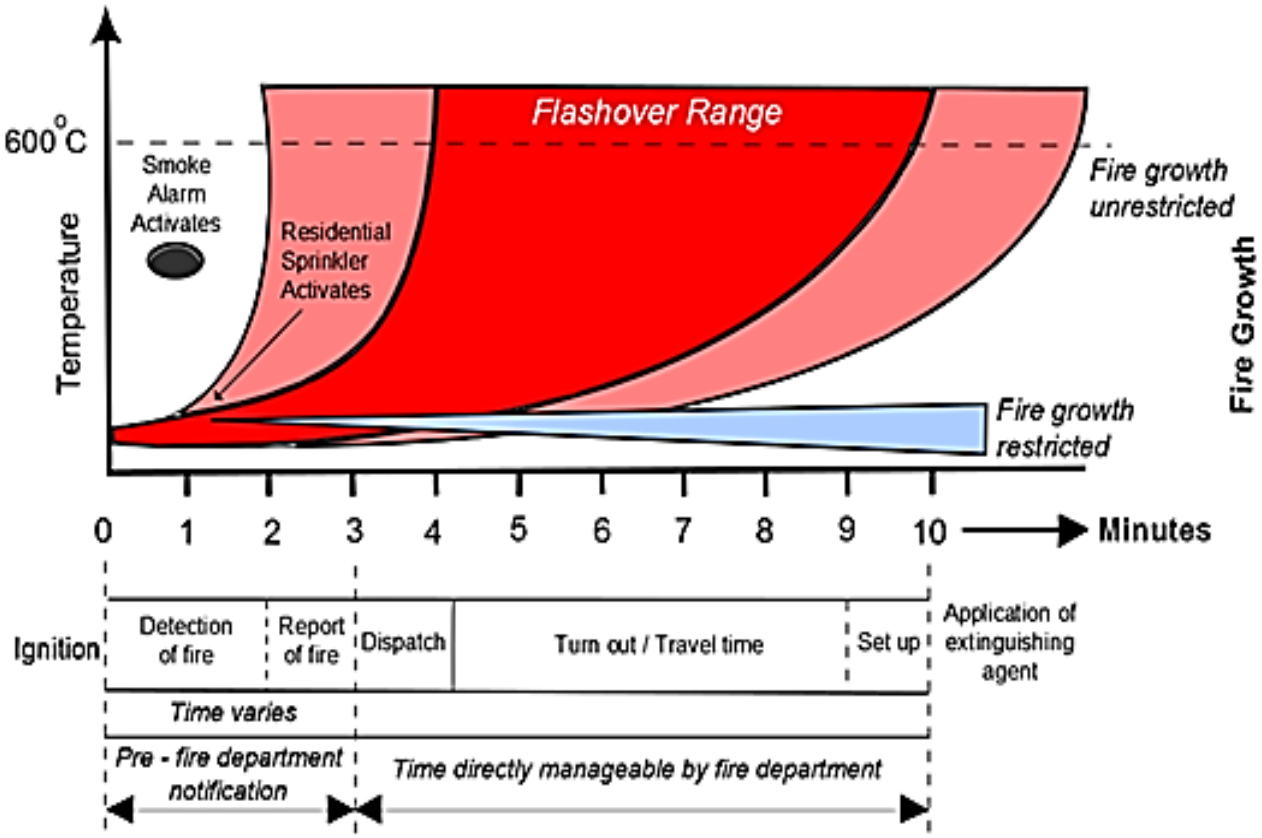
Table 15: Time to Reach 1 MW and 2 MW Fire Growth Rates

Fire Growth Rate	Time in Seconds to Reach 1 MW	Time in Seconds to Reach 2 MW
Slow	600 seconds	848 seconds
Medium	300 seconds	424 seconds
Fast	150 seconds	212 seconds

Source: "Operational Planning: An Official Guide to Matching Resource Deployment and Risk", Office of the Fire Marshal, January 24, 2011, p. 4.

In less than ten-minutes from ignition a fire can reach the point of "flashover" representing a point in the fire's growth and intensity that all of the combustible items within a given space reach a temperature that is sufficiently high enough for them to auto-ignite. The fire prorogation curve shown in **Figure 5** illustrates the importance of the time period prior to the fire department being notified and alerted to deploy fire suppression resources.

Figure 5: Fire Propagation Curve



Source: Fire Underwriters Survey "Alternative Water Supplies for Public Fire Protection: An Informative Reference Guide for Use in Fire Insurance Grading" (May 2009) and NFPA "Fire Protection Handbook" (2001)

Within the pre-fire department notification period, the presence of working smoke alarms, carbon monoxide alarms and public education that has guided the residents of the building to develop and practice a home escape plan are critical elements to the life safety of the occupants. It is within this pre-fire department notification period that the first two lines of the "three lines of defense" are critical to the life safety of the occupants.

8.3 Existing Fire Suppression Deployment Model

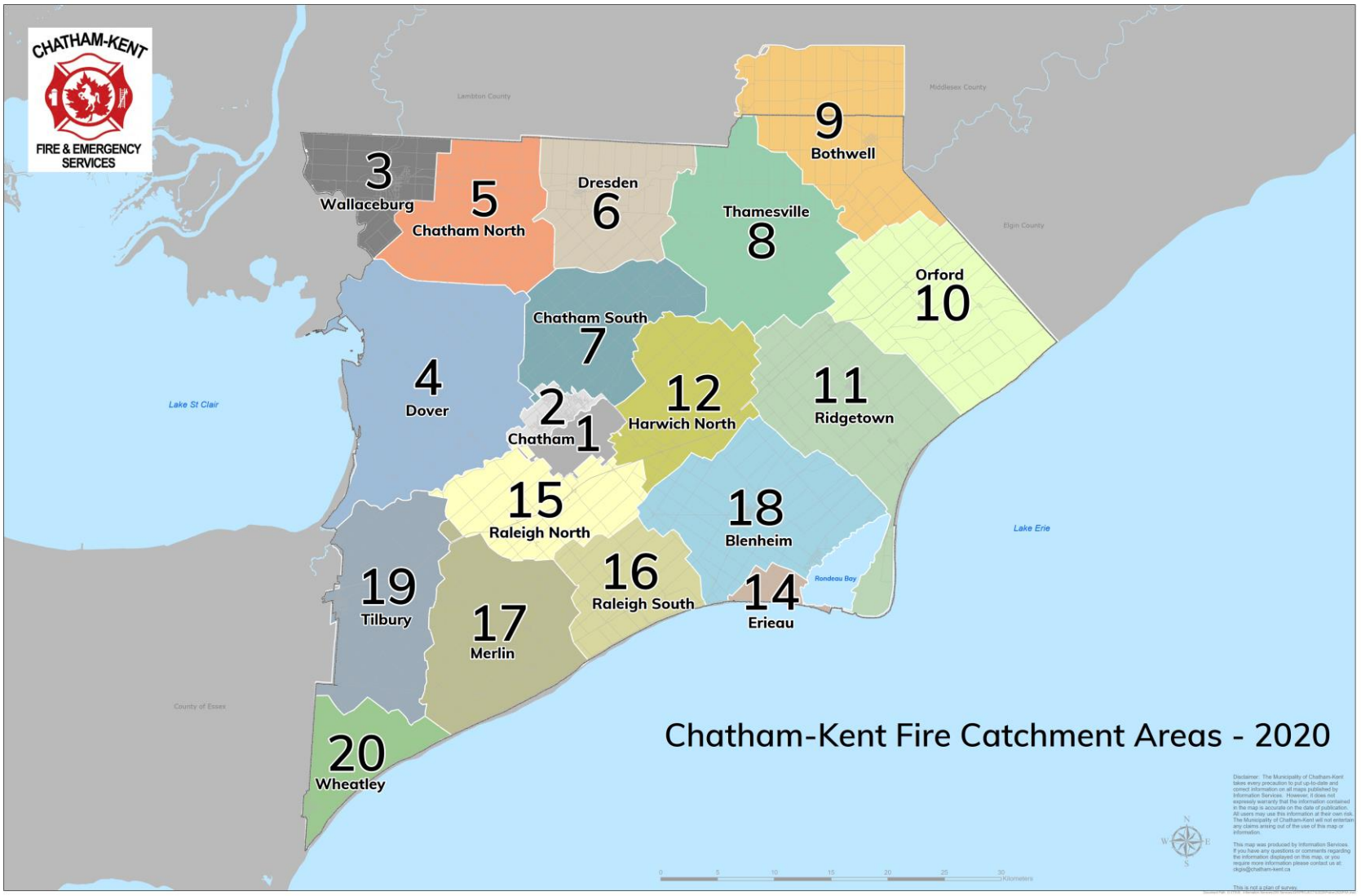
The existing fire suppression deployment model utilized by the Chatham-Kent Fire and Rescue (CKFR) includes a total complement of 65 career firefighters and 351[45] volunteer firefighters. The career firefighters are deployed from the Municipality's two Chatham stations (Stations 1 and 2) and the Wallaceburg station (Station 3). These stations are staffed with an on-duty minimum of four career firefighters each. The CKFR also has five career firefighters that are assigned as 'floaters' who are utilized to fill in for career firefighters who may be absent due to vacation, illness, WSIB or other approved absence.

The CKFR currently has a total Council approved total complement of 351 volunteer firefighters. The current distribution of volunteer firefighters includes Station 3 (Wallaceburg) which is a 'composite station' including a total complement of ten volunteer firefighters and 20 career firefighters. The other 16 stations have an assigned complement of 20 or 24 volunteer firefighters each.

The CKFR currently deploys fire suppression services from 19 stations across the municipality. The station catchment areas are shown in **Figure 6**.

[45] Current Council approved total complement of volunteer firefighters.

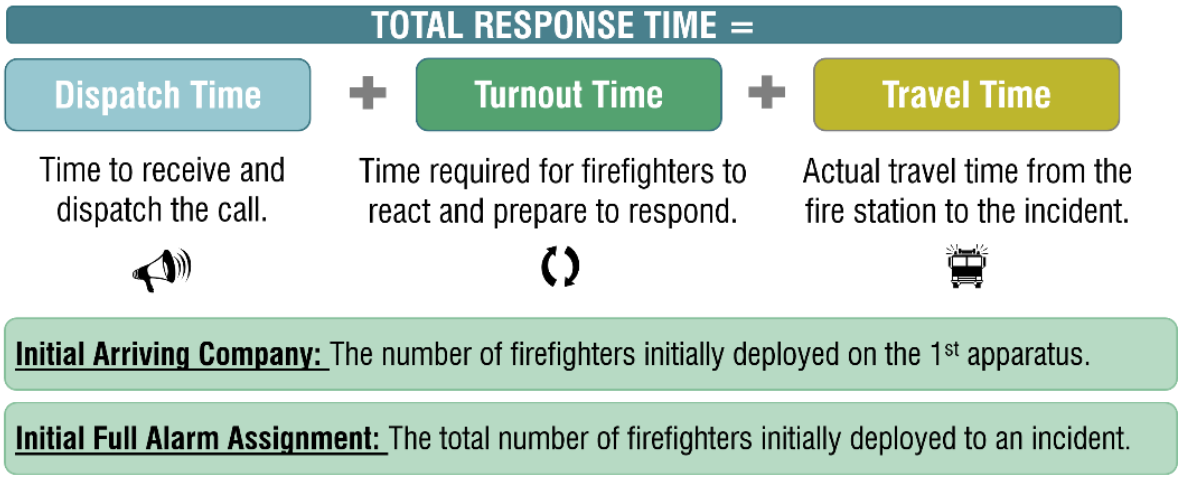
Figure 6: Existing Fire Station Catchment Area



8.4 Historical Fire Suppression Emergency Response Time Analysis

Within the fire service, fire suppression emergency response capabilities are assessed based on **"Total Response Time"** that represents the total of three primary elements including the **"Dispatch Time"**, **"Turnout Time"** and **"Travel Time"**. **Figure 7** illustrates how these three elements relate to calculating the total response time.

Figure 7: Total Response Time



The analysis within the following sections utilizes the historical CKFR fire suppression emergency response call data for the period from January 1, 2014, to December 31, 2020. Further details with regard to the CKFR historical fire suppression emergency response data can be found in the **Past Loss and Event History Profile** of the CRA.

8.4.1 Dispatch Time

In Canada, the Canadian Radio-television and Telecommunications Commission (CRTC) regulates the carriers who supply the network to direct and connect 911 calls to regional centres across Ontario. Calls initiated by the public through the use of the 911 system are typically directed to a regional 911 centre first, and then rerouted to the applicable fire department. It is important to recognize this element of Ontario's 911 emergency dispatching process.

In Chatham-Kent all 911 emergency calls are answered by the CKPSES. Based on pre-defined protocols the CKPSES will then alert the CKFR and then facilitate the role of fire dispatch on behalf of the CKFR. In this operating model dispatch time represents the time from when the CKPSES receives the 911 call until the CKPSES alerts the applicable

CKFR fire suppression staff to respond. Further information related to the operation of the emergency call taking and fire dispatching process is presented in **Section 11.0** – Communications.

8.4.2 Turnout Time

In Chatham-Kent turnout time represents the time from when the CKFR is alerted by the CKPSES to respond until the time that the alerted CKFR fire suppression staff have assembled, staffed an apparatus and are ready to respond to the emergency. Within the fire service turnout time is one of the most significant operational differences between the use of career and volunteer firefighters.

The CKFR currently staffs 3 fire stations with career firefighters at all times (Station 1, 2 and 3). The NFPA 1720 standard defines a performance objective for the turnout time of the career firefighters as "Where staffed stations are provided, when determined by the AHJ, they shall have a turnout time of 90 seconds for fire and special operations and 60 seconds for EMS, 90% of the time"[46].

The NFPA 1720 standard does not define a performance objective for volunteer firefighters. This is because the volunteer firefighters do not staff stations at all times in the same manner as the career firefighters. In the event of an emergency volunteer firefighters must first be alerted to respond, then travel in their own vehicle to the fire station, and then prepare to respond on an apparatus.

8.4.3 Travel Time

In Chatham-Kent travel time represents the time from when the apparatus leaves the fire station until it arrives at the scene of the incident. Travel times can be impacted by the distance to be travelled between the fire station and the emergency incident, and other factors such as weather, traffic congestion, and road construction. The CRA identified a number of 'identified risks' and 'key findings' that could impact the travel time of responding CKFR fire suppression apparatus including:

[46] 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 (2020 Edition), Chapter 4 Organization, Operation, and Deployment, 4.3 Staffing and Deployment, 4.3.3*

- There is one ingress and egress route for the community of Erieau (Erieau Road). Closure of Erieau Road due to flooding or other incidents has the potential to reduce the connectivity of the road network to this area resulting in potential impacts on emergency response capabilities (Identified as a High-Risk level).
- Flooding and erosion have the potential to require community evacuation and/or disrupt the road network, resulting in potential impacts on emergency response capabilities (Identified as a High-Risk Level).
- The Municipality of Chatham-Kent spans a large geographical area which could result in extended emergency response times for some areas of the municipality (Key Finding).
- There are currently 12 bridges within the Municipality which have load limits, affecting the ability of fire department apparatus to cross (Key Finding).
- The at-grade road-rail crossings have the potential to impact emergency response times (Key Finding).

8.4.4 NFPA 1720 Standard - Response Time

It is important to note that the fire suppression 'response time' performance objectives presented within the NFPA 1720 standard combine turnout time and travel time. This standard defines 'response time' as "Response time begins upon completion of the dispatch notification and ends at the time interval shown in the table"[47]. As indicated in **Section 8.1.2** of this FMP this means that the response time performance objective for the defined Urban Demand Zone (Chatham) is nine minutes, and for the defined Rural Demand Zone (Rest of the Municipality) is 14 minutes.

8.4.5 Historical Deployment Capabilities

Our review of the historical deployment capabilities of the CKFR focused on determining the number of career, and volunteer firefighters that were able to respond, and the

[47] 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 (2020 Edition), Chapter 4 Organization, Operation and Deployment. Table 4.3.2 Staffing and Response Time, Footnote 'c'.

turnout time of the carer and volunteer firefighters in comparison to the performance objectives of the NFPA 1720 standard.

This analysis confirmed that the career firefighters consistently exceeded the ninetieth percentile performance objective (NFPA 1720 Standard – Urban Demand Zone – Chatham) for the deployment of a minimum of four career firefighters.

This analysis also confirmed that the volunteer firefighters consistently achieved an eightieth percentile performance objective (NFPA 1720 -Rural Demand Zone – Rest of the Municipality) of deploying 2, or 3 volunteer firefighters on the first responding apparatus and 2, or 3 volunteer firefighters on the second and third responding apparatus.

8.4.6 Historical Emergency Response Turnout Time and Travel Time (NFP 1720)

Our review of the historical turnout time for the career and volunteer firefighters utilized the same fire suppression emergency response call data for the period from January 1, 2014, to December 31, 2020. This analysis focused on the first arriving apparatus (excluding personal vehicles) for all emergency calls where emergency warning systems including lights and sirens were required. This analysis also excluded all emergency calls where the calculated travel time was less than five seconds, or greater than 1,800 seconds, as these factors were identified as anomalies.

This analysis indicates that during this time period the ninetieth percentile turnout time for the first arriving apparatus staffed with career firefighters was 190 seconds (2.5 minutes). This exceeds the NFPA 1720 standard performance objective of 90[48] seconds for staffed stations.

This analysis also indicates that during this time period the eightieth percentile turnout time for the first arriving apparatus staffed with volunteer firefighters was 6.5 minutes. For the second apparatus staffed with volunteer firefighters the turnout time was nine minutes and 40 seconds, and for the third apparatus staffed with volunteer firefighters the turnout time was ten minutes and 30 seconds. Based on consultations with CKFR

[48] 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 (2020 Edition), Chapter 4 Organization, Operation, and Deployment, 4.3 Staffing and Deployment, 4.3.3*.

senior staff, our experience in other municipalities, and our professional judgement we assumed a ten-minute turnout time for the second arriving apparatus staffed with volunteer firefighters. Our analysis also assumed that within a ten-minute turnout time the first, and second apparatus responding with volunteer firefighters would be able to assemble a total of 6 volunteer firefighters on scene. This also recognizes that in some instances the volunteer firefighters may also arrive on scene in their personal vehicles.

Table 16 illustrates the historical turnout time, and travel times that have been applied to the career and volunteer firefighters to assess the historical fire suppression deployment capabilities of the CKFR, and future fire suppression scenarios.

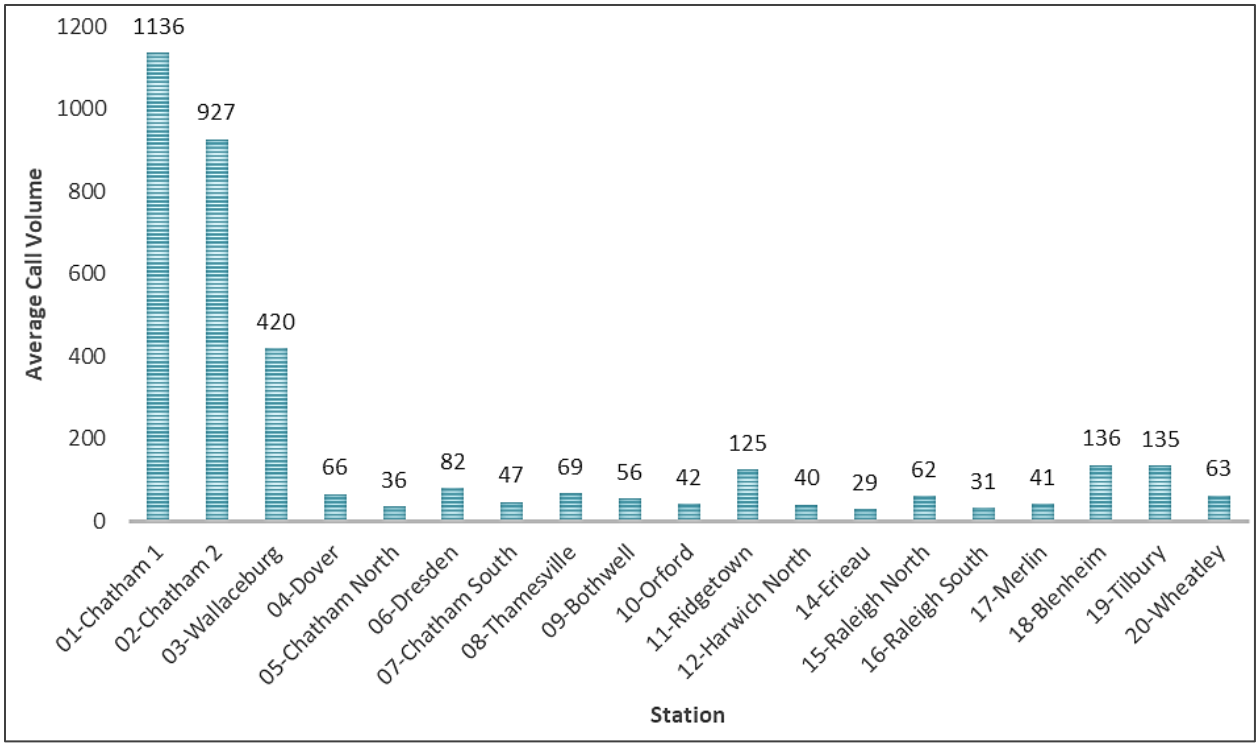
Table 16: Historical Turnout Time and Travel Time (NFPA 1720)

Applicable NFPA 1720 Demand Zone	Apparatus Deployment	Turnout Time (min.)	Travel Time (min.)	Response Time (min.)
Urban Demand Zone – Career	First Apparatus	2.5	6.5	9
Urban Demand Zone – Volunteer	First Apparatus	6.5	2.5	9
Rural Demand Zone – Career	First Apparatus	2.5	11.5	14
Rural Demand Zone – Volunteer	First Apparatus	6.5	7.5	14
Rural Demand Zone – Volunteer	Second Apparatus	10	4	14

8.4.7 Historical Emergency Response Call Volume

The analysis of the historical emergency response call volume by station for the period from January 1, 2015, to December 31, 2020, is shown in **Figure 8**. This illustrates that the stations in Chatham and Wallaceburg (Stations 1, 2, and 3) have the highest average call volume. Of the remaining 16 stations, 13 of them have fewer than 100 emergency calls per year on average. A comprehensive analysis of the CKFR historical emergency response data is contained within the **Fire Loss and Event History Profile** of the CRA.

Figure 8: Historical Average Call Volume by Station



8.4.8 Historical Fire Suppression Emergency Response Time Summary

The analysis of the historical turnout times of the career, and volunteer firefighters in comparison to the applicable NFPA 1720 standard is consistent with our findings in other composite (combination) fire departments. As indicated by the analysis, the turnout time of the career and volunteer firefighters has a significant impact on the overall fire suppression response times of the CKFR. Where possible strategies should be implemented to reduce both the career and volunteer firefighter turnout times.

Strategies to reduce the turnout time of the career firefighters may include a review of the current alerting process (technology) to respond, consideration of the station design process to allow safe and efficient access to the apparatus, ongoing data collection that includes reporting to each career crew on a monthly basis, and further consultation with the career firefighters.

Strategies to reduce the turnout times of the volunteer firefighters may also include a review of the current altering process (technology) for the volunteers to respond, consideration of allowing the volunteers to respond to the closest station, either from work or home, and further consultation with the volunteer firefighters.

Within the fire service travel times are commonly referred to as a 'fixed time'. This is because travel time actually represents the time remaining once the applicable turnout time has been deducted from the targeted response time. However, there are technologies such as traffic light emergency vehicle pre-emption systems that can have a positive impact on reducing travel times. In our experience the ongoing analysis of turnout time is a critical component of assessing a fire departments fire suppression capability. For example, larger municipalities in the GTA are beginning to see extended travel times that may be directly related to increasing traffic congestion.

Where possible the CKFR should continue to consult with the CKPS in developing broader data collection policies and implementing the emergency call taking and fire dispatching performance objectives contained in the NFPA 1221 Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems.

8.5 Existing Emergency Response Deployment Capability Analysis

The following sections detail our analysis of the existing emergency response deployment capabilities of the CKFR as conducted using Esri's Network Analyst, a Geographical Information System (GIS) tool developed specifically for the purpose of assessing networks, such as roads.

8.5.1 GIS Modelling Methodology

The Network Analyst tool developed by Esri Inc. was used to create a model of the existing Chatham-Kent road network to simulate the emergency response coverage of the CKFR. The existing road network used was obtained from the Land Information Ontario, sourced from the Ministry of Natural Resources and Forestry. The future road

network was identified based on the data obtained from the municipality for the land use growth information.

This simulation included the posted speed limits assigned to the existing road network based on the data supplied from the Ministry of Natural Resources and Forestry. An iterative process was undertaken to adjust the speeds throughout the road network to calibrate the existing conditions model to reflect historic travel times and emergency response performance of first responding units for all lights and siren calls from January 1, 2014, to December 31, 2020. Of the received call data, 1,002 were located within the municipality using x, y coordinates. For calls without x, y coordinates, a geocoding process was undertaken using the address to find the call location, resulting in a total of 14,271 historical calls located to inform the GIS modelling process.

The analyses were based on the first arriving vehicle (excluding personal vehicles) for calls when responding with light and sirens. We also excluded calls where the calculated travel time was less than five seconds and greater than 1,800 seconds to remove outliers. Misnomers were also reclassified or removed to ensure our outputs were consistent. **Table 17** presents the posted speed limits and the calibrated speed limits used in Network Analyst.

Table 17: Network Analyst Calibrated Speed

Posted Speed (kilometres per hour)	Calibrated Speed (kilometres per hour)
10	10
15	15
20	20
25	25
30	30
35	35
40	35
50	37
60	55
70	65
80	70
90	85
100	95

8.5.2 Application of NFPA Fire Suppression Deployment Targets

The calibrated road network, combined with the existing station locations and response time targets represent the analytic model used to build 'response polygons' around each fire station. These polygons represent the geographic area where the response target is achieved within the model in regard to staffing and/or a specified amount of travel time. This is the methodology used to assess the existing capabilities of the CKFR and to assess alternative future arrangements of staffing and stations.

8.5.3 Existing Fire Suppression Response Capabilities

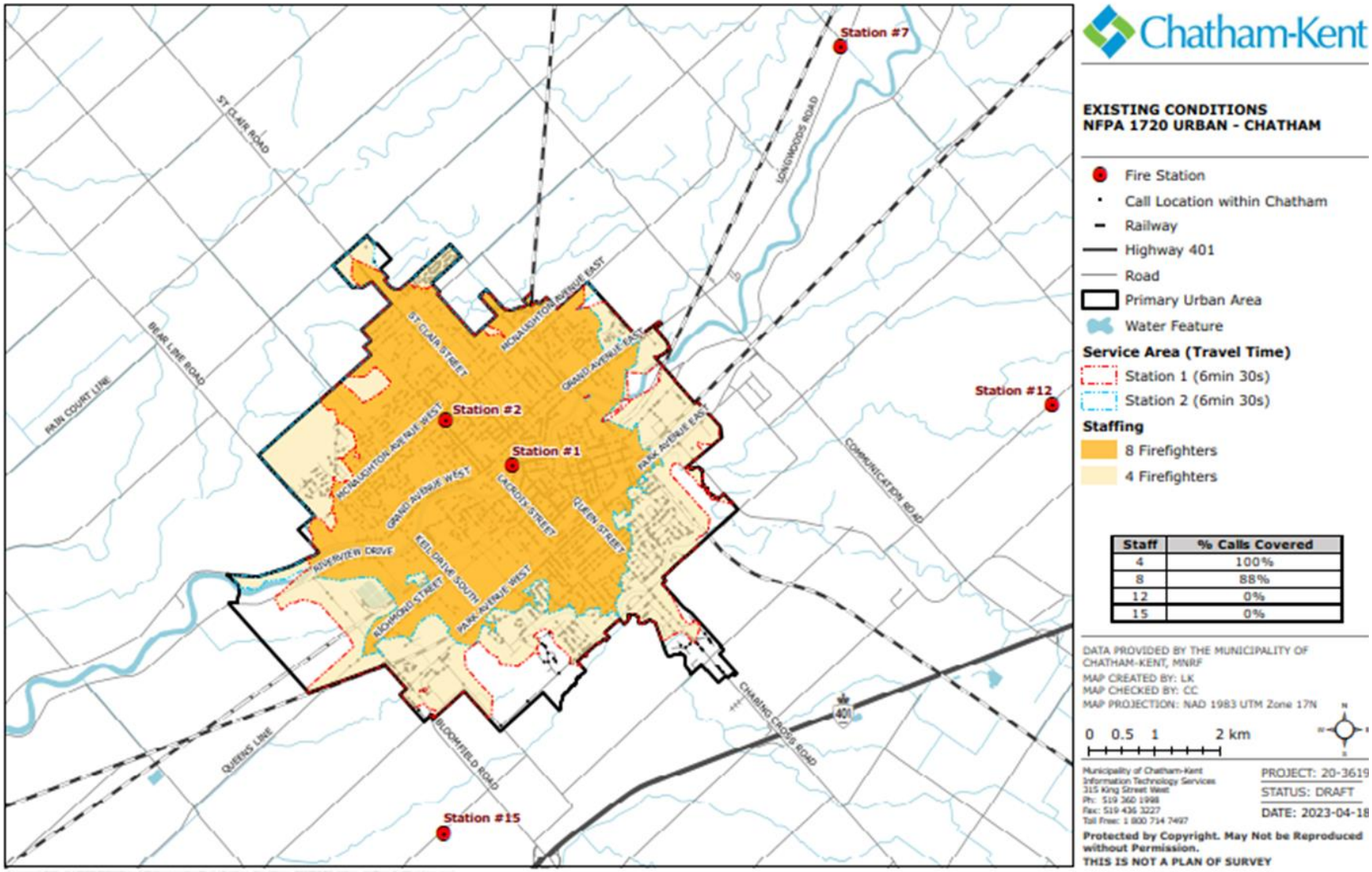
The findings of the existing staffing and turnout time analysis were applied to the calibrated GIS model to determine the existing response capabilities within the Urban Demand Zone (Chatham) and the Rural Demand Zones (rest of municipality). This sets the benchmark for comparison of assessing future alternative scenarios with the goal of improving the CKFR fire suppression response capability in comparison to the NFPA 1720 standard.

8.5.4 Existing Fire Suppression Response Capabilities – Urban Area Demand Zone (Chatham)

The existing response capabilities of the CKFR were assessed against the NFPA 1720 Urban Demand Zone (Chatham) performance target. This requires assembling 15 firefighters on the scene in 9.0 minutes of response time (turnout time plus travel time), to 90% of calls. The analysis was assessed based on the CKFR historic call data (January 1, 2014, to December 31, 2020). This analysis is focused on the deployment of the career firefighters in Stations 1 and 2 and the travel time as described above in **Table 17** (i.e., 6.5 minutes of travel time). This includes a front-line apparatus staffed with four career firefighters at each station.

Figure 9 illustrates that the CKFR is currently unable to assemble 15 firefighters on scene within 6.5 minutes of travel time (nine minutes of response time) to anywhere within Chatham. This is because there are only eight full time firefighters on duty at all times assigned to Stations 1 and 2, and available to respond. In the case of an incident where more than eight firefighters are required the CKFR can currently call in additional off duty career firefighters, but they would be unable to respond in nine minutes of response time. **Figure 9** illustrates that the CKFR can respond to 88% of the historical call locations with at least eight firefighters and 100% of calls with at least four firefighters in nine min. of turnout time plus travel time.

Figure 9: Existing Response Capabilities – Urban Demand Zone (Chatham)

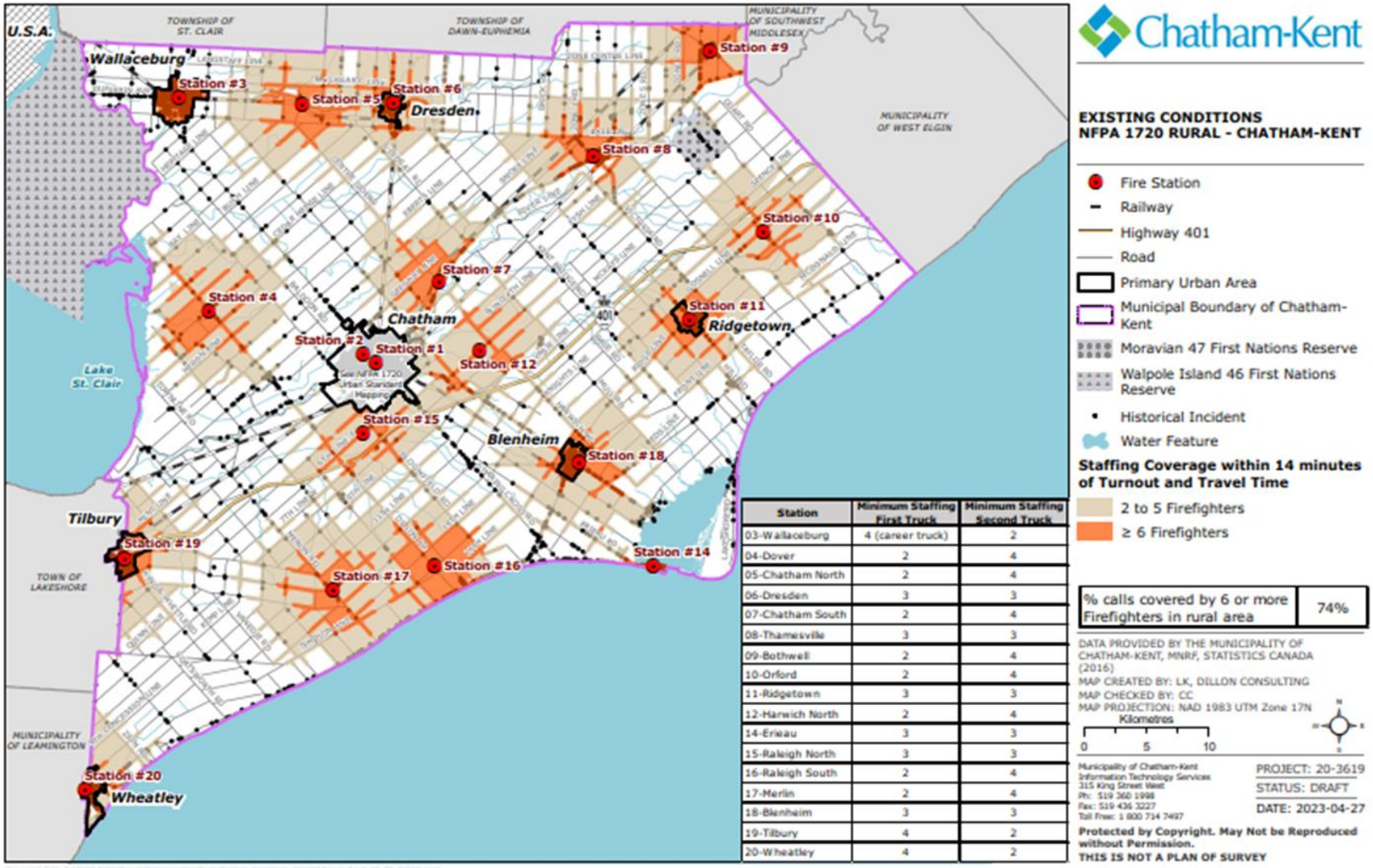


8.5.5 Existing Response Capabilities - Rural Demand Zone (Rest of Municipality)

This analysis assessed the existing response capabilities of the CKFR against the NFPA 1720 Rural Demand Zone (rest of municipality) performance target. This requires assembling six firefighters on the scene in 14 minutes of response time (turnout time plus travel time), to 80% of calls. The analysis was assessed based on the CKFR historic call data (January 1, 2014, to December 31, 2020). This analysis is focused on the deployment of the volunteer firefighters and the travel time as described above in **Table 17** (i.e., 7.5 minutes of travel time for the first volunteer apparatus and four minutes of travel time for the second volunteer apparatus from a station).

This model represents the deployment model in place at the time of preparing this FMP that included the career firefighters assigned to Station 3 (Wallaceburg) responding only within the Wallaceburg community boundary, and the volunteer firefighters assigned to Station 3 (Wallaceburg) responding within the Wallaceburg community boundary and outside of the Wallaceburg community boundary. This model also represents the career firefighters assigned to Stations 1 and 2 (Chatham) responding only within the defined Chatham community boundary. **Figure 10** illustrates that the CKFR is currently able to assemble six firefighters on scene within 7.5 minutes of travel time (14 minutes of response time) to 74% of calls within the Rural Demand Zone. This is in comparison to the NFPA 1720 performance target of 80% of calls.

Figure 10: Existing Response Capabilities – Rural Area Demand Zone (Rest of Municipality)



Station	Minimum Staffing First Truck	Minimum Staffing Second Truck
03-Wallaceburg	4 (career truck)	2
04-Dover	2	4
05-Chatham North	2	4
06-Dresden	3	3
07-Chatham South	2	4
08-Thamesville	3	3
09-Bothwell	2	4
10-Orford	2	4
11-Ridgetown	3	3
12-Harwich North	2	4
14-Erieau	3	3
15-Raleigh North	3	3
16-Raleigh South	2	4
17-Merlin	2	4
18-Blenheim	3	3
19-Tilbury	4	2
20-Wheatley	4	2

8.5.6 Trial Operating Guideline – Deployment Model

On February 14, 2023, the Fire Chief implemented a trial OG-Deployment Model with a targeted implementation date of July 1, 2023. This new deployment model was informed by the 'identified risks' and 'key findings' of the Community Risk Assessment, an internal CKFR review of recent emergency response call data, and a review of the departments historical fire suppression deployment model.

Our consultation with CKFR senior staff indicates that this new OG was 'aimed at sending the appropriate resources to the specific types of incidents where there is a high life risk such as serious MVCs, structure fires and water rescues'. The primary objective of this new guideline was to initiate a trial deployment model that implemented the simultaneous dispatching of two fire stations located within the Rural Demand Zone to incidents involving an 'identified risk'.

At the time of preparing this FMP the trial period for this new deployment model was still under review by the CKFR. However, our review of this new deployment model including it utilization in responding to a number of incidents since its introduction resulted in the following observations:

- This new deployment model was appropriately informed by the 'identified risks' and 'key findings' of the recently completed Community Risk Assessment. This represents the intended use of O. Reg. 378/18 – Community Risk Assessments.
- This new deployment model reflects current industry best practices in simultaneously deploying a sufficient number of firefighters from the closest fire stations to assemble the total number of firefighters required on scene based on the fire and life safety risks present.
- Our consultation with senior CKFR staff, and our review of media coverage related to incidents where this new deployment model has been utilized indicates a positive response from the community, and the department in prioritizing life safety including the community and responding firefighters.

8.6 Community Growth Considerations

In order to fully inform the proposed future fire suppression deployment model scenarios presented within this FMP, the analysis included the consideration of future community growth within the next 10-year planning horizon of this FMP. To fully

understand the projected future community growth in Chatham-Kent, Dillon consulted with municipal planning staff, reviewed the Municipality of Chatham-Kent Official Plan (OP), and the 2019 Municipal Comprehensive Review (MCR) completed by Watson and Associates Economists Ltd. The following summarizes the growth assumptions for this study:

- As summarized in the MCR, for a number of years, the Municipality has experienced a population decline. Since 2016, however, the Municipality has seen modest population growth. This is in part evidenced by the new residential units developed from 2016 to 2020 which includes the addition of 877 residential construction units of which 86% were single-detached dwelling, 10% were semi-detached or duplex, and 2% were row houses. Nearly half (44%) of the total units have been added to the community of Chatham.[49]
- As identified in the MCR, the population is forecast to grow by 4,100 people by 2046, from 104,800 people in 2016. This will require an additional 4,750 households or 158 new households per year.
- Currently there is a sufficient amount of designated urban residential land supply within the Primary Urban Centres (including Blenheim, Chatham, Dresden, Ridgetown, Tilbury, Wallaceburg and Wheatley.)
- Over this period of growth, the community of Chatham will continue to be a major growth area. The focus of that growth is in:
  - the Southwest Quadrant (south of Park Avenue West);
  - the Northwest Quadrant (north of McNaughton Avenue West);
  - the Northeast Quadrant (east of Michener Road); and
  - Employment growth planned for the Bloomfield Corridor, including the Bloomfield Business Park which is in development.
- Overall, an average of approximately 14% of total housing construction will be accommodated through intensification through either infill/redevelopment or within the built boundary (being those opportunities related to the absorption of remaining vacant housing units in registered plans of subdivision), as identified in the MCR and provided by Planning staff.

[49] Based on analysis of new residential construction data provided by the Municipality.

- The Municipality is seeing growth in employment areas within Chatham on Richmond Street, and East Chatham with industrial uses.
- Road network connectivity has a direct impact of emergency response performance. In consultation with the Municipality, within the Chatham community, it was identified that the future road network should include the Riverview Drive crossing bridge connection over Bloomfield Road. However, the Talbot Trail in Chatham-Kent area is currently under hazard assessment and closure due to road erosion. A new road network connecting Wheatley and Cedar Springs is currently under development. Similarly, Rosebeach Line is experiencing erosion and will not be maintained for future use. The Town should continue to monitor the timing of road network improvements including the resulting impact on emergency response performance.
- Council has approved new residential buildings in Chatham along:
  - Grande Avenue (Redeveloping, 140-unit apartment building close to downtown core);
  - Keil Drive (Two, four-storey residential building with a total of 140 units); and
  - Park Avenue (Two buildings with 120 units each).

8.6.1 Planned Growth Areas

In addition to reviewing other planning documents, Dillon collected copies of the current plans of subdivision for Chatham-Kent. These plans were located throughout the municipality including in Wallaceburg, Tilbury, Blenheim, Wheatley, Chatham and elsewhere. The majority of the plans were in Chatham in the Northeast, Southwest and Northwest quadrants of the municipality. The vast majority of the plans were for low density or medium density residential development including some multi-storey condominium buildings.

While the market will determine the ultimate pace of growth, based on the MCR, the Official Plan, available plans of subdivision and discussions with planning staff, we have used the plans of subdivision to represent the location of future growth through the horizon period of this FMP.

The road network associated with the plans of subdivision were added to the existing condition network model of the municipality to represent the future conditions.

Recommendation 13: That the CKFR continue to consult with the Municipality's planning department, monitor and update the list of planning projects as they unfold and as more detailed information becomes available regarding growth areas, population projections and built form.

8.7 Proposed Emergency Response Deployment Scenarios

The proposed emergency response deployment scenarios are intended to provide options for Council's consideration in their decision-making process towards enhancing the existing fire suppression capabilities of the CKFR within the next ten-year planning horizon of this FMP.

The existing fire suppression response capabilities analysis presented in **Section 8.7.3** highlights that the CKFR cannot currently meet the applicable NFPA 1720 standard anywhere in the Urban Demand Zone (Chatham) (i.e., 0% coverage compared to a target of 90%). However, the same analysis indicates that the CKFR can currently achieve 74% of the applicable NFPA 1720 standard for the Rural Demand Zone (rest of municipality) which is slightly lower than the performance objective of 80%.

With the addition of the projected future community growth projections, particularly some higher density development being proposed, sustaining and/or enhancing the current fire suppression deployment capabilities of the CKFR will become increasingly challenging.

The proposed emergency response deployment scenarios are intend to provide options for Council's consideration in the form of 'Scenarios' that support the proposed 'strategic priorities' presented within this FMP including:

I. The Municipality of Chatham-Kent is committed to supporting the transition of the Chatham-Kent Fire and Rescue into a fully integrated, composite fire service operating model.
II. The Municipality of Chatham-Kent recognizes the need to utilize new provincial legislation to provide the foundation for the Municipality to review and revise its current fire protection organizational structure and operational capabilities to deliver the most effective and efficient level of fire protection services that prioritizes the safety of the public and firefighters resulting in the best value for the growing community.

III. The Municipality of Chatham-Kent is dedicated to prioritizing strategies that support the sustainability of a fully integrated, composite fire service operating model including recognition of the historical commitment of those who have dedicated their services to the community in the past.

The proposed scenarios present incremental strategies, or a 'roadmap' for the CKFR to develop a fully integrated, composite fire service operating model to further enhance the existing fire suppression deployment capabilities of the CKFR in response to the findings of the CRA, and to further enhance the existing fire suppression deployment capabilities of the CKFR in comparison to the applicable NFPA 1720 performance objectives.

Scenarios 1, 2 and 3 do not consider the future community growth considerations presented within **Section 8.6**. All other scenarios include the findings of the future community growth considerations.

8.7.1 Scenario 1 – Proposed Implementation of District Chiefs

The internal stakeholder consultation process to prepare this FMP including consultation with municipal senior staff, CKFR senior staff, career firefighters survey and the volunteer firefighters' survey consistently identified the fact that the current organizational structure of the CKFR, in principle, continues to represent the pre-amalgamation organizational structure. Specifically, the current organizational structure of the CKFR has retained the Volunteer Station Chief, and Volunteer Deputy Fire Station Chief positions that were in place prior to amalgamation. As a result, the current organizational structure of the CKFR includes 31 'Chief Officer' designations.

The CKFR is currently one of the largest composite (combination) fire departments in Ontario. This currently includes over 400 career and volunteer firefighters responding from 19 fire stations. The analysis presented within this FMP also indicates that the current SMT of the department is being challenged in sustaining its current workload and the ability to focus on strategic initiatives rather than being consumed in day-to-day operations of the department.

In our view the consideration of implementing a revised organizational structure within the CKFR needs to be prioritized based on the following factors:

- Identified need to address the current workload of the SMT;
- Identified need to implement a revised 'rank structure' to support the operational priority of 'Incident Command' more efficiently and effectively; and
- The need to implement an organizational structure that will support the administrative and operational priorities of the proposed fully integrated, composite fire service operating model.

Based on our analysis there is an identified need for the Municipality of Chatham-Kent to consider a revised organizational structure that would include a new position (rank) including two full-time on duty District Chief positions. These new positions would report directly to the Assistant Chief-Operations and be directly responsible for two new fire suppression districts, with each District Chief in command of one district (e.g., 'North Command' and 'South Command').

The implementation of the proposed-on duty District Chief positions would include dividing the municipality into two that would each include approximately 50% of the department's current fire station catchment areas, representing approximately 50% of the CKFR current fire suppression staff resources (career and volunteer firefighters). Each of the proposed-on duty District Chiefs would be directly responsible for all fire suppression staff (career and volunteer firefighters) assigned to their command areas. The proposed District Chief would be assigned to each command district and would be assigned to Station 1 and Station 2, respectively.

In this scenario the two proposed-on duty District Chiefs would be on duty at all times. The primary objective of implementing this scenario is to implement a new 'senior officer' rank that in the proposed fully integrated, composite fire service operating model would provide on duty full-time senior administrative and operational command skills and competencies.

Further details regarding the implementation of the proposed District Chief position, and associated revisions to the current organizational structure of the CKFR will be presented within the proposed revised Organizational Structure and Staff Resource Strategy section of this FMP.

These new 'senior officer' on duty positions are being presented prior to the presentation of the following future emergency response deployment scenarios

because in our view these positions are integral to the successful objective of attaining the proposed fully integrated, composite fire service operating model.

The implementation of this scenario would require the municipality to hire eight full-time District Chiefs. Further information related to these new positions will be presented within **Section 9.0** – Proposed Staff Resource Strategy.

The implementation of the proposed District Chiefs has been assumed to have been completed as the first step towards the transition to the proposed fully integrated, composite fire service operating model. **Therefore, the following proposed scenarios include the implementation of the proposed District Chiefs.**

8.7.2 Scenario 2 – Proposed Fully Integrated, Composite Fire Service Operating Model

In our view the current fire suppression deployment model of the CKFR includes barriers to achieving the optimal deployment of the current fire suppression resources of the CKFR including the deployment of both career and volunteer firefighters. As a result, there are identifiable gaps in the current fire suppression deployment model of the CKFR. For example, in our view a fully integrated, composite fire service operating model utilizing the current fire suppression resources including the simultaneous dispatching of both career and volunteer firefighters, could assemble a larger total number of firefighters on scene more often than the current fire suppression deployment model, resulting in a higher level of fire and life safety for the community and for responding firefighters.

In our view the current trial deployment model described in **Section 8.5.6** represents the foundation of implementing a fully integrated, composite fire service operating model. This trial deployment model implemented the strategy of simultaneously dispatching of firefighters from the two closest fire stations. In our view the implementation of a simultaneous dispatching strategy across the entire municipality would eliminate the current geographical boundaries that restrict a fully integrated response of career and volunteer firefighters.

This scenario assesses the benefits of implementing a fully integrated, composite fire service operating model. This scenario assesses the predicted emergency response capabilities of the CKFR based on the simultaneous dispatching of the closest career and/or volunteer crews, based on who can get to the incident the quickest.

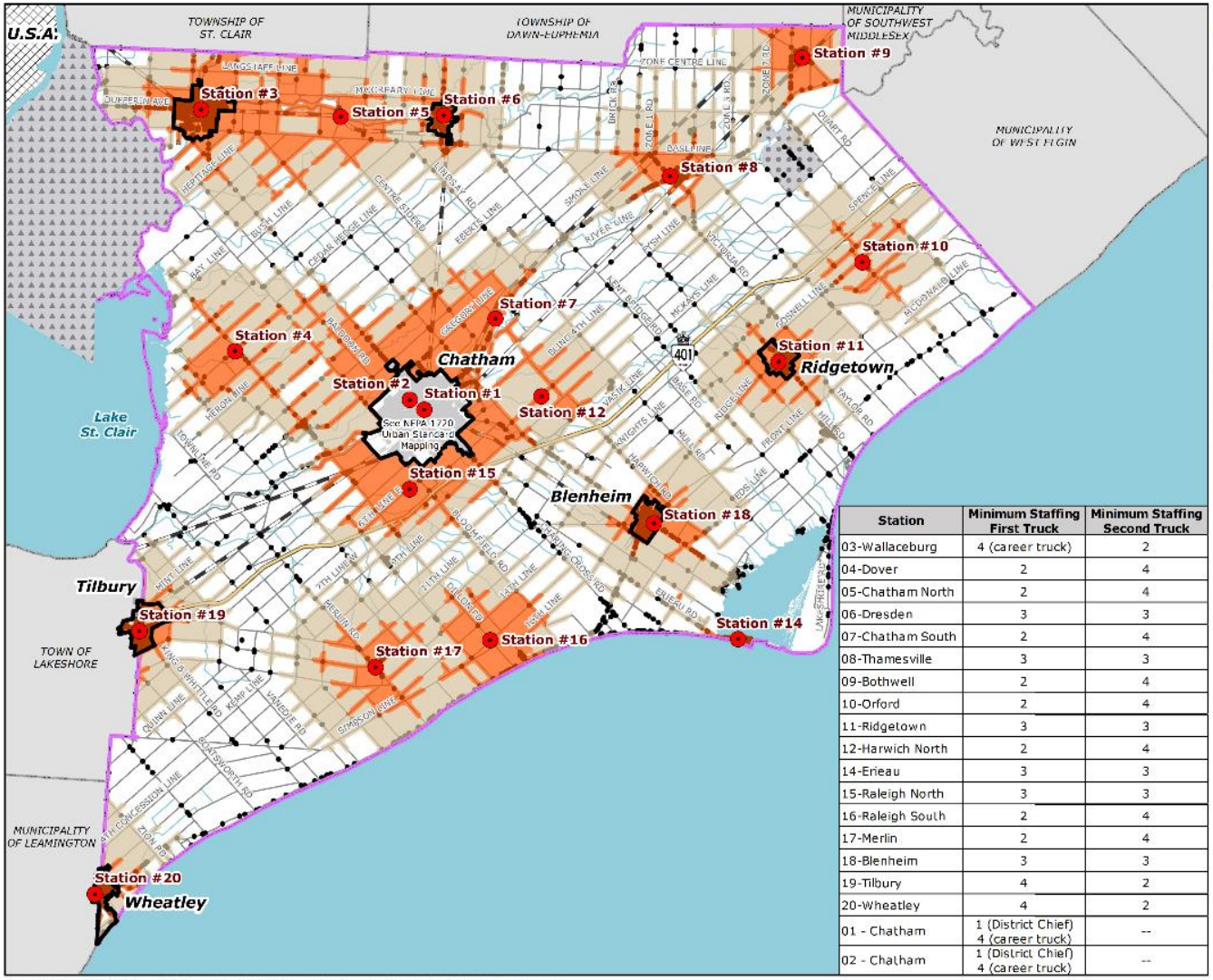
Figure 11 illustrates that the CKFR would be able to further enhance its current deployment of six firefighters arriving on scene within 14 minutes of response time to the Rural Demand Zone area from its existing 74% capabilities to 79.9% with the implementation of the proposed fully integrated, composite fire service operating model. The implementation of this scenario could essentially attain the NFPA 1720 performance objective in the Rural Demand Zone with no additional fire suppression resources.

In our view the implementation of the proposed fully integrated, composite fire service operating model would also result in an improvement to the existing fire suppression capabilities of the CKFR in the Urban Demand Zone (Chatham). The simultaneous dispatching of volunteer firefighters into the Urban Demand Zone (Chatham) area would result in a faster assembly of the total number of firefighters required for 'high risk' occupancies identified by the CRA such as:

- Group C – Residential Occupancies represent 91.3% (36,681) of the Municipality's existing building stock, and over the five-year period from January 1, 2015, to December 31, 2019, were associated with 72.5% (296) of the structure fires within the Municipality (Identified as High-Risk Level).
- The Municipality currently has 19 building defined by the OBC as high-rise buildings with a floor level 18 metres (59 feet) above grade, or six storeys. These buildings are primarily located within the settlement area of Chatham (Identified as High-Risk Level).

The intent of this scenario is to present a strategy to the municipality that assumes the initial implementation of the proposed District Chiefs that could be implemented in the short-term to further enhance the utilization of all existing fire suppression staff resources (career and volunteer firefighters).

Figure 11: Scenario 2 – Proposed Fully Integrated, Composite Fire Service Operating Model



Station	Minimum Staffing First Truck	Minimum Staffing Second Truck
03-Wallaceburg	4 (career truck)	2
04-Dover	2	4
05-Chatham North	2	4
06-Dresden	3	3
07-Chatham South	2	4
08-Thamesville	3	3
09-Bothwell	2	4
10-Orford	2	4
11-Ridgetown	3	3
12-Harwich North	2	4
14-Erieau	3	3
15-Raleigh North	3	3
16-Raleigh South	2	4
17-Merlin	2	4
18-Blenheim	3	3
19-Tilbury	4	2
20-Wheatley	4	2
01 - Chatham	1 (District Chief) 4 (career truck)	--
02 - Chatham	1 (District Chief) 4 (career truck)	--

Chatham-Kent

PROPOSED FULLY INTEGRATED, COMPOSITE FIRE SERVICE OPERATING MODEL

- Fire Station
- Railway
- Highway 401
- Road
- Primary Urban Area
- Municipal Boundary of Chatham-Kent
- Moravian 47 First Nations Reserve
- Walpole Island 46 First Nations Reserve
- Historical Incident
- Water Feature

Staffing Coverage within 14 minutes of Turnout and Travel Time

- 2 to 5 Firefighters
- ≥ 6 Firefighters

% calls covered by 6 or more Firefighters in rural area	79.9%

DATA PROVIDED BY THE MUNICIPALITY OF CHATHAM-KENT, MNRF, STATISTICS CANADA (2016)
MAP CREATED BY: LK, DILLON CONSULTING
MAP CHECKED BY: CC
MAP PROJECTION: NAD 1983 UTM Zone 17N

Kilometres
0 5 10

Municipality of Chatham-Kent
Information Technology Services
315 King Street West
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Fax: 519 436 3227
Toll Free: 1 800 714 7497

PROJECT: 20-3619
STATUS: DRAFT
DATE: 2023-11-29

Table 18 provides a summary of the existing fire suppression response capabilities of the CKFR existing conditions and the predicated results of implementing Scenarios 1 and 2, in comparison to the applicable NFPA standard performance objectives.

Table 18: Summary of Results, Scenario 2 – Proposed Fully Integrated, Composite Fire Service Operating Model

Scenario	Fire Suppression Deployment Model	Urban Demand Zone (15 Firefighters on Scene in Nine Minutes 90% of the Time)	Rural Demand Zone (Six Firefighters on Scene in 14 minutes 80% of the time)
Existing Conditions	Existing Fire Suppression Response Capabilities	0%	74%
Existing Conditions	Implementation of new Operating Guideline Deployment Model	0%	74%
Scenario 1	Proposed Implementation of District Chiefs	0%	74%
Scenario 2	Proposed Fully Integrated, Composite Fire Service Model	0%	79.9%

8.7.3 Scenario 3 – Proposed Optimized Two Station Model (Urban Demand Zone – Chatham)

In order to further enhance the existing fire suppression emergency response capabilities of the CKFR in the Urban Demand Zone (Chatham), an analysis was undertaken using our GIS analytic model to determine the optimal station locations for the two existing Chatham stations (Stations 1 and 2). The optimal locations will provide the best station arrangement to achieve the maximum fire suppression emergency response coverage.

One of the optimal station locations was very close to the existing Station 2 such that there is no practical difference in response coverage. The analysis showed that Station 1 is better located further south from the existing Station 1 in the vicinity of Park Street and William Street South. The optimized location of Station 1 and the existing location of Station 2 were used in all future two station model scenarios tested.

Adjusting the station locations on their own without increasing the number of firefighters available to respond from these stations does not change the assessment of fire suppression emergency response coverage in comparison to the applicable NFPA 1720 Urban Demand Zone (i.e., 0% coverage compared to a target of 90%). In this scenario there are still only a minimum of eight career firefighters on duty at all times, and the volunteer firefighters are not currently allowed to respond within the Urban Demand Zone (Chatham). Therefore, there are an insufficient number of firefighters available to respond to attain NFPA 1720 standard requirement of 15 firefighters on scene. However, by relocating Station 1 it does improve the fire suppression emergency response capabilities of the first arriving apparatus to an incident, and better positions the CKFR for the analysis of other future scenarios.

One of the other advantages of relocating Station 1 to its optimal location in the current two-station model is its positive impact on the proposed fully integrated, composite fire service operating model for the Rural Demand Zone area. Subject to implementing the proposed fully integrated, composite fire service operating model the optimal location of Station 1 would further enhance the Rural Demand Zone area coverage from 79.9% to 80.1%. This improvement is as a result of the ability of the four career firefighters on duty responding from either Station 1, Station 2, or Station 3 combined with a minimum of two firefighters from a volunteer station, which achieves the minimum on scene requirement of six firefighters. This occurs where their response area overlaps in the 14 minutes of response time as required by NFPA 1720.

Table 19 provides a summary of the existing fire suppression response capabilities of the CKFR. It also summarizes the predicted results for Scenario 1 which is the existing conditions with the District Chiefs and then the predicated results of implementing Scenarios 2 and 3, in comparison to the applicable NFPA standard performance objectives.

Table 19: Summary of Results, Scenario 3 – Proposed Optimized Two Station Model (Urban Demand Zone – Chatham)

Scenario	Fire Suppression Deployment Model	Urban Demand Zone (15 Firefighters on Scene in Nine Minutes 90% of the Time)	Rural Demand Zone (Six Firefighters on Scene in 14 Minutes 80% of the Time)
Existing Conditions	Existing Fire Suppression Response Capabilities	0%	74%
Existing Conditions	Implementation of new Operating Guideline Deployment Model	0%	74%
Scenario 1	Proposed Implementation of District Chiefs	0%	74%
Scenario 2	Proposed Fully Integrated, Composite Fire Service Model	0%	79.9%
Scenario 3	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham)	0%	80.1%

8.7.4 Scenario 4 – Proposed Urban Demand Zone (Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Stations 2 and Station 7

This scenario includes the following:

- The implementation of the optimized two Station Model (Urban Demand Zone – Chatham) that includes relocating Station 1;
- The consolidation of the volunteer firefighters assigned to Station 15 with the career firefighters at the relocated Station 1; and
- The consolidation of the volunteer firefighters assigned to Station 7 with the career firefighters assigned to Station 2.

This scenario results in Stations 1 and 2 becoming composite stations (career and volunteer) the same as the current Station 3 (Wallaceburg) staffing model. This scenario assumes that enough volunteer firefighters are relocated and/or recruited to staff

Stations 1 and 2 to sustain the existing volunteer firefighter emergency response deployment of a minimum of three firefighters within 6.5 minutes of turnout time. This would result in the volunteer firefighters having an available 2.5 minutes of travel time from Stations 1 and 2 within the nine-minute Urban Demand Zone (Chatham) response standard.

This scenario would further enhance the CKFR ability to assemble a larger pool of firefighters on scene in a shorter time than the existing fire suppression deployment model. **Figure 12** illustrates an area in the central part of Chatham where the CKFR would be able to assemble a total of 14 firefighters (career and volunteer) in a nine-minute response time.

Subject to the implementation of the proposed-on duty District Chiefs prior to, or in conjunction with the implementation of this scenario the CKFR would be able to achieve the NFPA 1720 standard for the Urban Demand Zone (Chatham) of 15 firefighters arriving on scene within a nine-minute response time to 1.8% of the historical emergency call locations.

Our analysis of this scenario also considered the potential impacts of the proposed consolidation of Stations 1 and 15, and Station 2 and 7. The result is predicted to be a decrease in the Rural Area Demand Zone (Rest of the Municipality) coverage from the 80.1% coverage presented in the proposed Scenario 3, to 79.5% coverage in this scenario. This scenario still results in an enhanced Rural Area Demand Zone (Rest of the Municipality) coverage in comparison to the existing deployment model coverage of 74%.

Figure 12 illustrates the improved response coverage for the urban demand zone of Chatham, and **Table 20** presents a summary of the response coverage of this scenario in comparison to the applicable NFPA 1720 performance objectives.

Figure 12: Scenario 4 – Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Stations 2 and Station 7

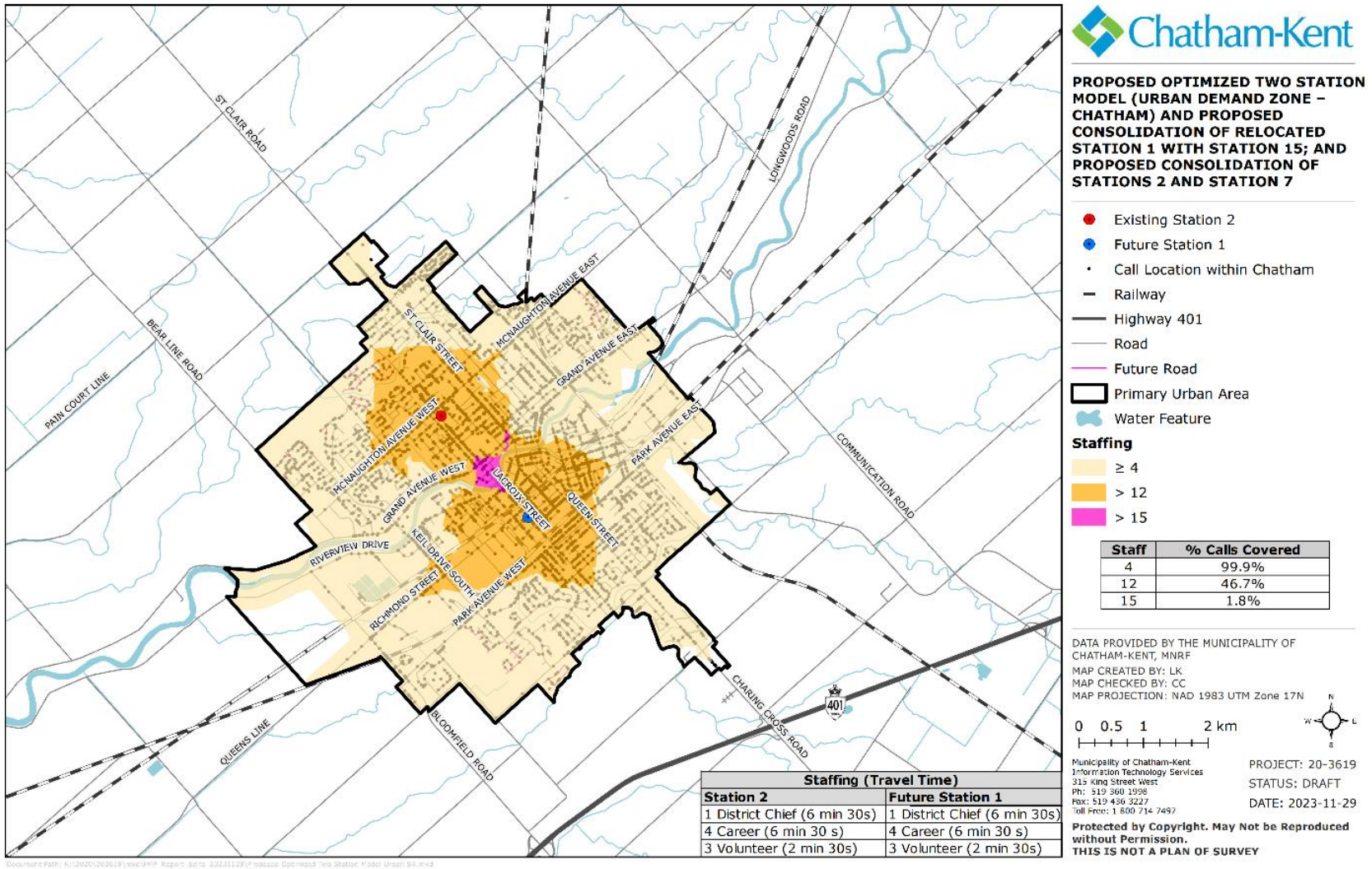


Table 20: Summary of Results, Scenario 4 – Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Stations 2 and Station 7

Scenario	Fire Suppression Deployment Model	Urban Demand Zone (15 Firefighters on Scene in Nine Minutes 90% of the Time)	Rural Demand Zone (Six Firefighters on Scene in 14 Minutes 80% of the Time)
Existing Conditions	Existing Fire Suppression Response Capabilities	0%	74%
Existing Conditions	Implementation of new Operating Guideline Deployment Model	0%	74%
Scenario 1	Proposed Implementation of District Chiefs	0%	74%
Scenario 2	Proposed Fully Integrated, Composite Fire Service Model	0%	79.9%
Scenario 3	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham)	0%	80.1%
Scenario 4	Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Stations 2 and Station 7	1.8%	79.5%

8.7.5 Scenario 5 – Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) plus Two Person Career Crew

This scenario incudes:

- The implementation of the optimized two Station Model (Urban Demand Zone – Chatham) that includes relocating Station 1;
- The consolidation of the volunteer firefighters assigned to Station 15 with the career firefighters at the relocated Station 1;
- The consolidation of the volunteer firefighters assigned to Station 7 with the career firefighters assigned to Station 2; and
- The hiring of an additional two-person career crew at the relocated Station 1 to initially staff a second front-line apparatus with a crew of two career firefighters.

This scenario assumes the same conditions as presented within Scenario 4 related to the number of volunteer firefighters available and their ability to sustain the same turnout time of 6.5 minutes, and the available travel time of 2.5 minutes.

The implementation of this scenario is predicted to result in a 46.7% improvement in the CKFR ability to assemble 15 firefighters on scene in a nine-minute response time within the Urban Demand Zone (Chatham) area.

The implementation of this scenario also results in the CKFR being able to achieve the Rural Demand Zone (rest of the Municipality) performance objective of deploying six firefighters within a 14-minute response time to 80% of the historical emergency call locations. This scenario would achieve the NFPA 1720 standard Rural Demand Zone (rest of the municipality) performance objection.

The implementation of this scenario would require the municipality to hire 12 additional career firefighters. Further information related to these new positions will be presented within **Section 9.0** – Proposed Staff Resource Strategy.

Figure 13 and **Figure 14** illustrates the Urban Demand Zone and Rural Demand Zone response coverage respectively. **Table 21** presents a summary of the response coverage of this scenario against the performance targets.

Figure 13: Scenario 5 – Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) plus Two Person Career Crew

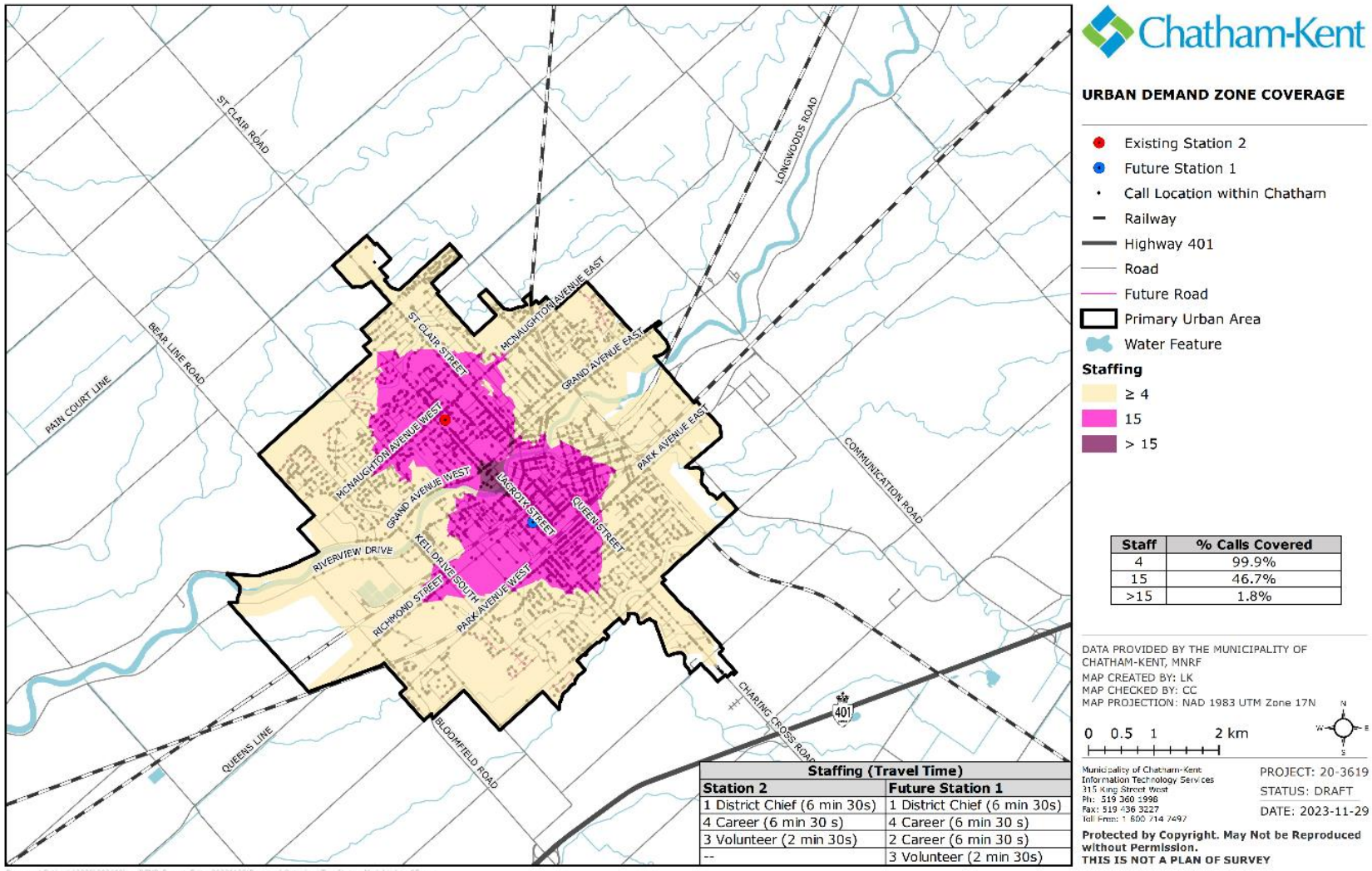
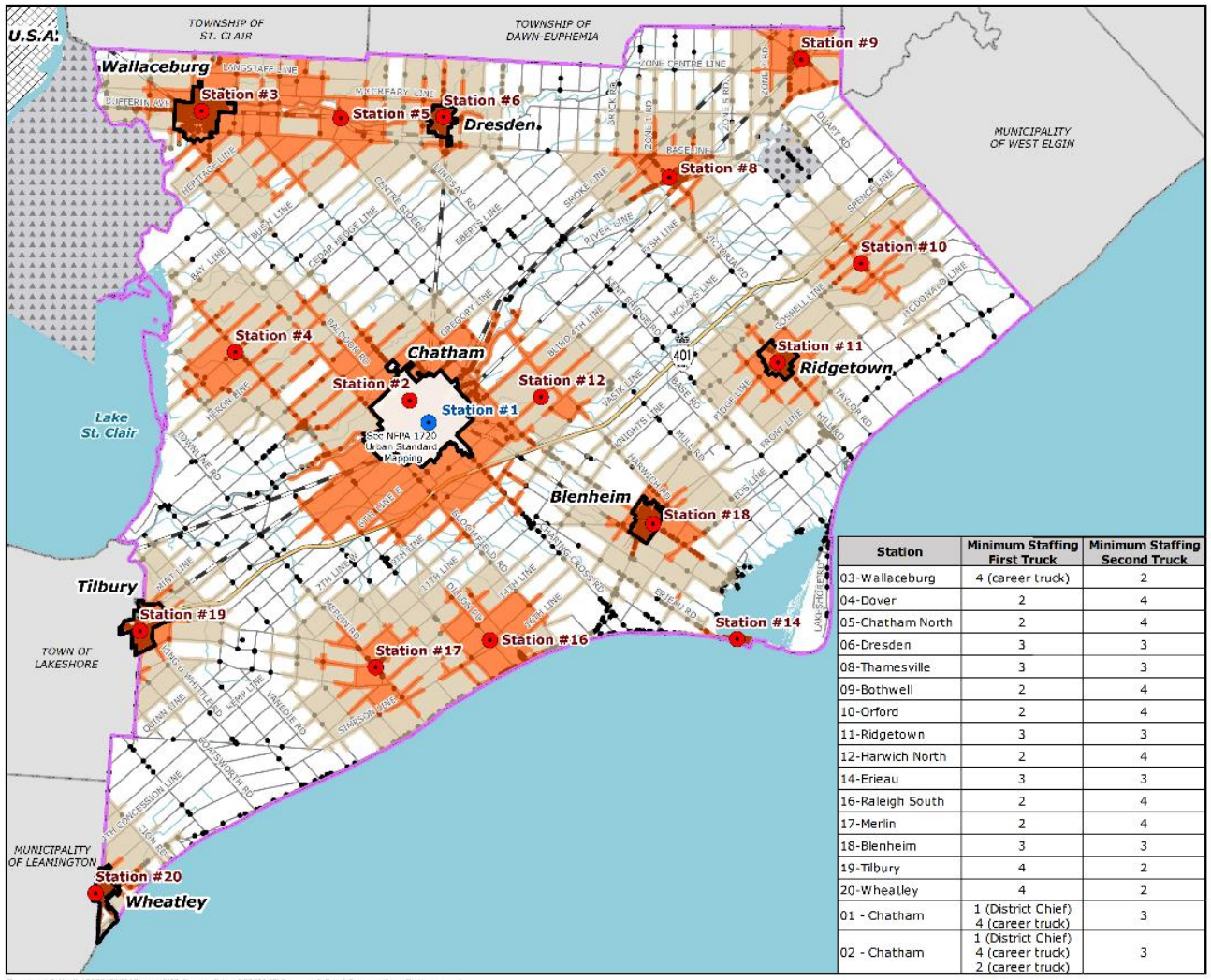


Figure 14: Scenario 5 – Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) plus Two Person Career Crew



Station	Minimum Staffing First Truck	Minimum Staffing Second Truck
03-Wallaceburg	4 (career truck)	2
04-Dover	2	4
05-Chatham North	2	4
06-Dresden	3	3
08-Thamesville	3	3
09-Bothwell	2	4
10-Orford	2	4
11-Ridgetown	3	3
12-Harwich North	2	4
14-Erieau	3	3
16-Raleigh South	2	4
17-Merlin	2	4
18-Blenheim	3	3
19-Tilbury	4	2
20-Wheatley	4	2
01 - Chatham	1 (District Chief) 4 (career truck)	3
02 - Chatham	1 (District Chief) 4 (career truck) 2 (career truck)	3

Chatham-Kent

RURAL DEMAND ZONE COVERAGE

- Fire Station
- Relocated Fire Station
- Railway
- Highway 401
- Road
- Primary Urban Area
- Municipal Boundary of Chatham-Kent
- Moravian 47 First Nations Reserve
- Walpole Island 46 First Nations Reserve
- Water Feature
- Historical Incident

Staffing Coverage within 14 minutes of Turnout and Travel Time

- 2 to 5 Firefighters
- ≥ 6 Firefighters

% calls covered by 6 or more Firefighters in rural area	80.1%

DATA PROVIDED BY THE MUNICIPALITY OF CHATHAM-KENT, MNRF, STATISTICS CANADA (2016)
MAP CREATED BY: LK, DILLON CONSULTING
MAP CHECKED BY: CC
MAP PROJECTION: NAD 1983 UTM Zone 17N
Kilometres
0 5 10

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PROJECT: 20-3619
STATUS: DRAFT
DATE: 2023-11-29

Table 21: Summary of Results, Scenario 5 – Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) plus Two Person Career Crew

Scenario	Fire Suppression Deployment Model	Urban Demand Zone (15 Firefighters on Scene in Nine Minutes 90% of the Time)	Rural Demand Zone (Six Firefighters on Scene in 14 Minutes 80% of the Time)
Existing Conditions	Existing Fire Suppression Response Capabilities	0%	74%
Existing Conditions	Implementation of new Operating Guideline Deployment Model	0%	74%
Scenario 1	Proposed Implementation of District Chiefs	0%	74%
Scenario 2	Proposed Fully Integrated, Composite Fire Service Model	0%	79.9%
Scenario 3	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham)	0%	80.1%
Scenario 4	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Stations 2 and Station 7	1.8%	79.5%

Scenario	Fire Suppression Deployment Model	Urban Demand Zone (15 Firefighters on Scene in Nine Minutes 90% of the Time)	Rural Demand Zone (Six Firefighters on Scene in 14 Minutes 80% of the Time)
Scenario 5	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Station 2 and Station 7, plus an additional two-person Career Crew assigned to relocated Station 1.	46.7%	80%

8.7.6 Scenario 6 – Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) plus Four Person Career Crew

This scenario incudes:

- The implementation of the optimized two Station Model (Urban Demand Zone – Chatham) that includes relocating Station 1;
- The consolidation of the volunteer firefighters assigned to Station 15 with the career firefighters at the relocated Station 1;
- The consolidation of the volunteer firefighters assigned to Station 7 with the career firefighters assigned to Station 2; and
- The hiring of additional career firefighters at the relocated Station 1 to fully staff a second front-line apparatus with a crew of four career firefighters.

This scenario also assumes the same conditions as presented within Scenario 6 related to the number of volunteer firefighters available and their ability to sustain the same turnout time of 6.5 minutes, and the available travel time of 2.5 minutes.

The implementation of this scenario is also predicted to result in a 46.7% improvement in the CKFR ability to assemble 15 firefighters on scene in a nine-minute response time

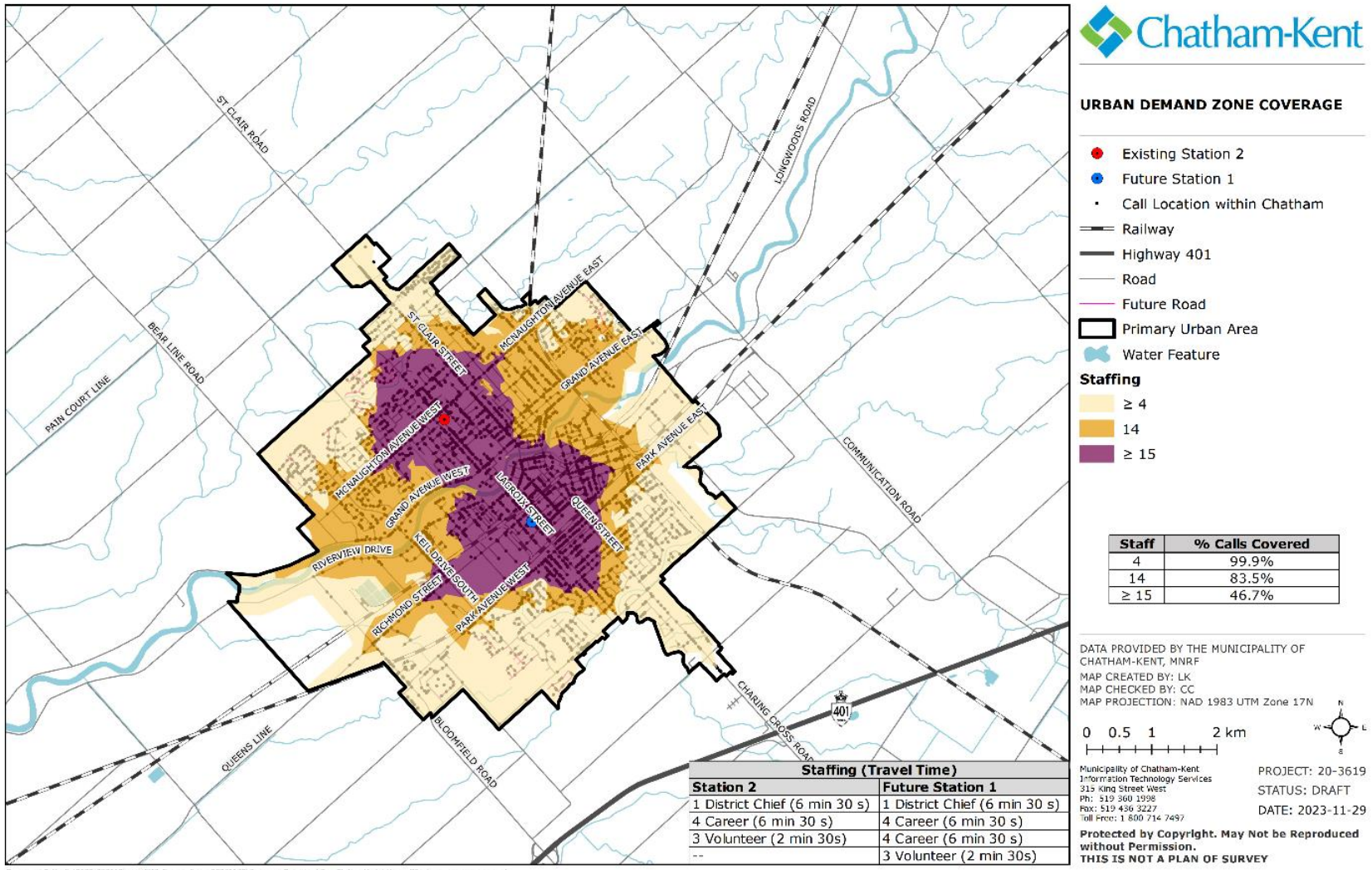
within the Urban Demand Zone (Chatham) area. This scenario also results in the CKFR being able to assemble 14 firefighters on scene in a nine-minute response time to 83.5% of the historical emergency call locations. Although this is one firefighter less than the NFPA 1720 standard performance objective of 15 firefighters, this is a notable significant improvement in the existing CKFR fire suppression deployment capabilities that show the CKFR is currently unable to achieve a 14-firefighter deployment in a nine-minute response time at any time.

The implementation of this scenario also results in the CKFR being able to achieve the Rural Demand Zone (rest of the Municipality) performance objective of deploying six firefighters within a 14-minute response time to 80.1% of the historical emergency call locations. This scenario would achieve the NFPA 1720 standard Rural Demand Zone (rest of the municipality) performance objection.

The implementation of this scenario would require the municipality to hire ten additional career firefighters. Further information related to these new positions will be presented within **Section 9.0** – Proposed Staff Resource Strategy.

Figure 15 illustrates the Urban Demand Zone response coverage. **Table 22** presents a summary of the response coverage of this scenario against the performance targets.

Figure 15: Scenario 6 – M



Staffing (Travel Time)	
Station 2	**Future Station 1**
1 District Chief (6 min 30 s)	1 District Chief (6 min 30 s)
4 Career (6 min 30 s)	4 Career (6 min 30 s)
3 Volunteer (2 min 30s)	4 Career (6 min 30 s)
--	3 Volunteer (2 min 30s)

Table 22: Summary of Results, Scenario 6 – Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) plus Four Person Career Crew

Scenario	Fire Suppression Deployment Model	Urban Demand Zone (15 Firefighters on Scene in Nine Minutes 90% of the Time)	Rural Demand Zone (Six Firefighters on Scene in 14 Minutes 80% of the Time)
Existing Conditions	Existing Fire Suppression Response Capabilities	0%	74%
Existing Conditions	Implementation of new Operating Guideline Deployment Model	0%	74%
Scenario 1	Proposed Implementation of District Chiefs	0%	74%
Scenario 2	Proposed Fully Integrated, Composite Fire Service Model	0%	79.9%
Scenario 3	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham)	0%	80.1%
Scenario 4	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Stations 2 and Station 7	1.8%	79.5%
Scenario 5	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Station 2	46.7%	80%

Scenario	Fire Suppression Deployment Model	Urban Demand Zone (15 Firefighters on Scene in Nine Minutes 90% of the Time)	Rural Demand Zone (Six Firefighters on Scene in 14 Minutes 80% of the Time)
	and Station 7, plus an additional two-person Career Crew assigned to relocated Station 1.		
Scenario 6	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Station 2 and Station 7, plus a Four-person Career Crew assigned to relocated Station 1	46.7%	80.1%

8.7.7 Scenario 7 – Future Optimized Three Station Model (Urban Demand Zone – Chatham)

This scenario considers the implementation of a third station located within the urban area of Chatham staffed only with career firefighters. This scenario incudes:

- The implementation of the optimized two Station Model (Urban Demand Zone – Chatham) that includes relocating Station 1.
- The consolidation of the volunteer firefighters assigned to Station 15 with the career firefighters at the relocated Station 1.
- The consolidation of the volunteer firefighters assigned to Station 7 with the career firefighters assigned to Station 2.
- The implementation of a third Urban Station.
- The relocation of the second front-line apparatus and career firefighters from the relocated Station I to the new third Urban Station.

An analysis was undertaken to identify the three best station locations for Chatham in a three-station model. The analysis indicated that one of the three station locations was very close to existing Station 2 such that there is no practical difference in response coverage. The other two optimal station locations for a third urban station are located south of the Thames River; one in the vicinity of Park Street and William Street South, and the other along Keil Drive South, just south of the Thames River.

The implementation of this scenario is predicted to result in a 49.2% improvement in the CKFR ability to assemble 15 firefighters on scene in a nine-minute response time within the Urban Demand Zone (Chatham) area. This scenario also results in the CKFR being able to assemble 14 firefighters on scene in a nine-minute response time to 73.6% of the historical emergency call locations. Although this is one firefighter less than the NFPA 1720 standard performance objective of 15 firefighters, this is also a notable significant improvement in the existing CKFR fire suppression deployment capabilities that show the CKFR is currently unable to achieve a 14-firefighter deployment in a nine-minute response time at any time.

The implementation of this scenario also results in the CKFR being able to achieve the Rural Demand Zone (rest of the Municipality) performance objective of deploying six firefighters within a 14-minute response time to 80.3% of the historical emergency call locations. This scenario would achieve the NFPA 1720 standard Rural Demand Zone (rest of the municipality) performance objection.

This analysis assumes that the municipality would have implemented the proposed Scenario 6 including the hiring of the required number of career firefighters to staff a second-font line apparatus at the relocated Station 1. This scenario relocates the second-front line apparatus and career firefighters from the relocated Station 1 to the proposed third urban station. Therefore, no additional career firefighters would be required to implement this scenario.

The implementation of this scenario would result in similar results as presented in the proposed Scenario 6 for both the Urban Demand Zone and Rural Demand Zone. In our view the benefit of this scenario would be an improved response capability of the initial responding apparatus, specifically in the Urban Demand Zone, and in response to projected community growth and intensification.

Figure 16 illustrates the Urban Demand Zone response coverage and **Table 23** presents a summary of the response coverage of this scenario against the performance targets.

Figure 16: Scenario 7 – Future Optimized Three Station Model (Urban Demand Zone – Chatham)

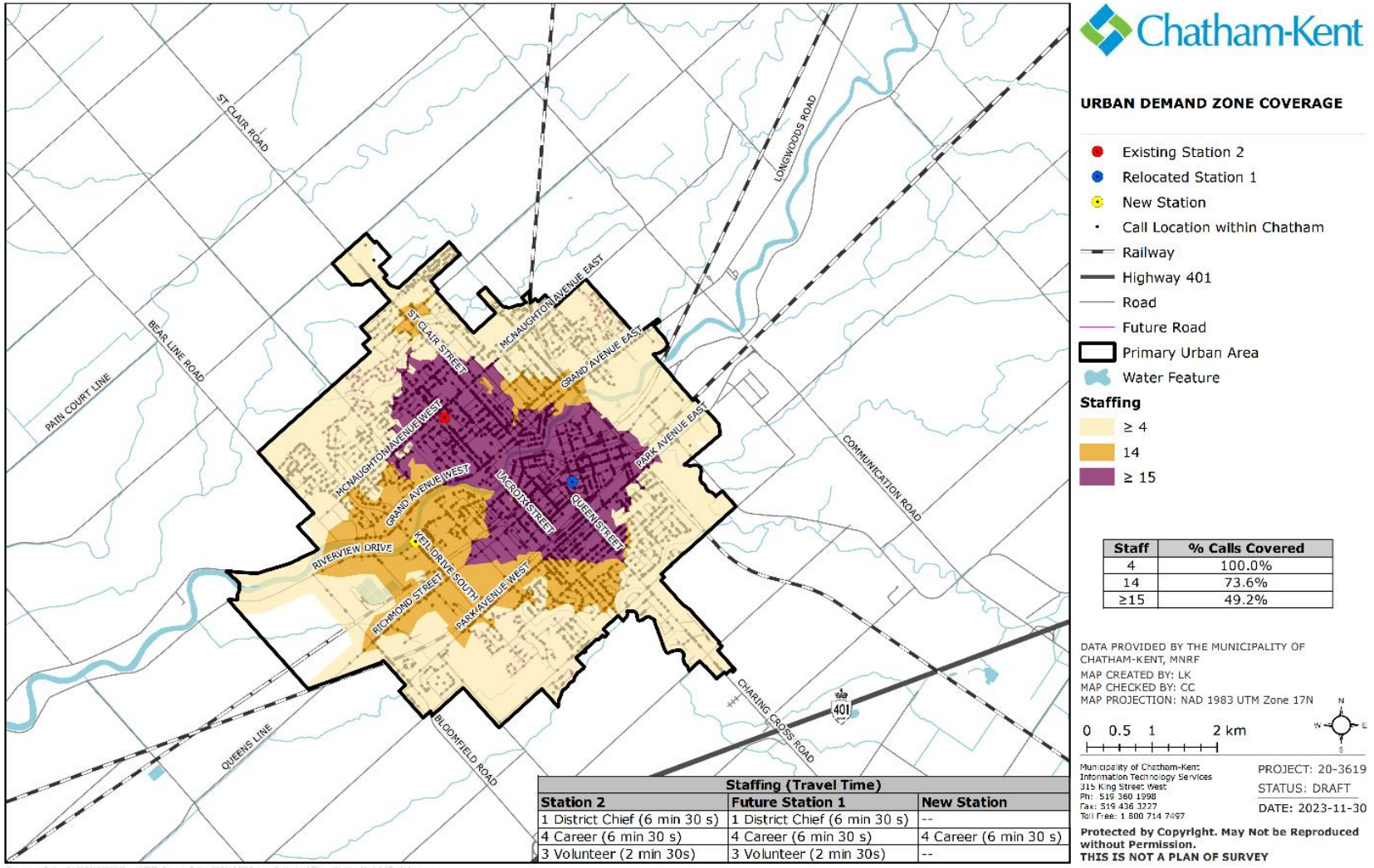


Table 23: Summary of Results, Scenario 7 – Future Optimized Three Station Model (Urban Demand Zone – Chatham)

Scenario	Fire Suppression Deployment Model	Urban Demand Zone (15 Firefighters on Scene in Nine Minutes 90% of the Time)	Rural Demand Zone (Six Firefighters on Scene in 14 Minutes 80% of the Time)
Existing Conditions	Existing Fire Suppression Response Capabilities	0%	74%
Existing Conditions	Implementation of new Operating Guideline Deployment Model	0%	74%
Scenario 1	Proposed Implementation of District Chiefs	0%	74%
Scenario 2	Proposed Fully Integrated, Composite Fire Service Model	0%	79.9%
Scenario 3	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham)	0%	80.1%
Scenario 4	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Stations 2 and Station 7	1.8%	79.5%

Scenario	Fire Suppression Deployment Model	Urban Demand Zone (15 Firefighters on Scene in Nine Minutes 90% of the Time)	Rural Demand Zone (Six Firefighters on Scene in 14 Minutes 80% of the Time)
Scenario 5	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Station 2 and Station 7, plus an additional two-person Career Crew assigned to relocated Station 1.	46.7%	80%
Scenario 6	Proposed Optimized Two Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Station 2 and Station 7, plus a four-person Career Crew assigned to relocated Station 1	46.7%	80.1%

Scenario	Fire Suppression Deployment Model	Urban Demand Zone (15 Firefighters on Scene in Nine Minutes 90% of the Time)	Rural Demand Zone (Six Firefighters on Scene in 14 Minutes 80% of the Time)
Scenario 7	Future Optimized Three Station Model (Urban Demand Zone – Chatham) and proposed consolidation of relocated Station 1 with Station 15; and proposed consolidation of Station 2 and Station 7, plus a Four-person Career Crew assigned to the new third urban station.	49.2%	80.3%

8.7.8 Further Improvements Beyond Scenarios 6 or 7

As indicated in the Scenario 6 and Scenario 7 results the deployment of an additional four-person career crew from Station 1 or a new third urban station results in a significant improvement to the CKFR existing fire suppression emergency response coverage, approaching 50% of the historical emergency call locations in the Urban Demand Zone (Chatham). Improvements beyond this level of service would require the municipality to hire additional career firefighters beyond what is presented within this FMP.

For example, adding a second front-line apparatus and crew of four career firefighters to Station 1 in a three-station urban model would result in response coverage approaching 75%. However, in comparison to the CKFR existing total complement of 65 career firefighters this would require the hiring of 44 additional career firefighters (the number of firefighters required to staff two additional front-line apparatus on a 24 hours per day basis, 365 days per year). Planning for this level of additional operating expense for the Municipality was judged to be beyond the capability of the current Municipal circumstances for the ten-year planning horizon of this plan. This should be

revisited in the subsequent fire master planning exercises, or if planned growth and other circumstances change.

8.7.9 Superior Tanker Shuttle Accreditation – Alternative Water Supply for Public Fire Protection

A Tanker Shuttle Accreditation in Ontario refers to a certification or accreditation related to fire department operations, specifically in the context of rural or areas without hydrants where water supply for firefighting can be challenging. Tanker shuttle operations involve transporting water to the scene of a fire, typically using tankers to ensure an adequate water supply for firefighting efforts.

The Tanker Shuttle Accreditation signifies that a fire department has met certain standards and criteria for establishing an effective tanker shuttle operation. These criteria include equipment standards, training, response times, identifying water sources, maintaining flow rates and regular testing and maintenance.

The CKFR has the Tanker Shuttle Accreditation for the Rural Demand Zone excluding Station 14, and efforts to maintain the accreditation should be a priority. Some of the advantages of the accreditation include:

- Improved fire protection by ensuring a reliable and adequate water supply;
- Improved municipal insurance rating that can affect insurance premiums for property owners;
- Enhanced firefighter safety by ensuring that firefighters have a consistent and sufficient water supply while battling fires;
- Community confidence knowing that the local fire department has achieved accreditation; and
- It can facilitate and be a valuable component of mutual aid agreements.

The Superior Tanker Shuttle Accreditation is a proprietary process managed by the Fire Underwriters Survey™ (FUS), a national organization administered by SCM Risk Management Services Inc. formerly CGI Insurance Business Services, formerly the Insurers' Advisory Organization and Canadian Underwriters Organization.

As a method to provide water for firefighting in areas without municipal water supply, the Superior Tanker Shuttle Accreditation includes the following process:

- Set up pumper apparatus at fire event and deliver water from temporary storage facility (e.g., portable tank) through fire pump to fire;
- Draft water (from a location where water supplies are known to be reliable and accessible) into a mobile water supply apparatus;
- Move water from source location to fire event using mobile water supply apparatus;
- Dump water into temporary storage facility (ex. portable tank) at fire event location; and
- Repeat shuttle cycle.

The levels of service assigned with the Tanker Shuttle Accreditation (e.g., Standard Tanker Shuttle Service or Superior Tanker Shuttle Accreditation) are determined by the alternative water supply performance and capabilities provided by the fire services.

As stated on the FUS website: "To be recognized for Standard Tanker Shuttle Service, the fire department must have adequate equipment, training and continuous access to approved alternative water supplies to deliver standard tanker shuttle service in accordance with NFPA 1142, Standard on Water Supplies for Suburban and Rural Fire Fighting."

The CKFR was accredited by FUS on September 10, 2022, having achieved the requirements of the Superior Tanker Shuttle Accreditation for the Rural Demand Zone excluding the Station 14 catchment area. The accreditation period is valid to September 10, 2027. Maintaining the accreditation required CKFR to practice (and document) the tanker shuttle service.

As an accredited department, detached dwelling owners located within 8 kilometres of a responding fire station are likely eligible for a reduction in fire insurance rates. The CKFR recognizes the importance of the Superior Tanker Shuttle Accreditation as a component of providing the most cost effective and efficient level of fire protection services providing the most value to the community.

8.7.10 Proposed Fire Station Locations and Strategies

Our analysis of the existing fire station locations within the Urban Demand Zone (Chatham) supports the implementation of a strategy to re-locate the existing Station 1 and sustain the utilization of the existing Station 2 at its current location.

8.7.10.1 Re-Location of Fire Station 1

The analysis indicates that the optimal location of a re-located Station 1 in a two-station model in the Urban Demand Zone (Chatham) is in the area of Park Street and William Street South. In the proposed three-station model in the Urban Demand Zone (Chatham) the optimal location of a re-located Station 1 would be in the area of Park Street and Lacroix Street. Our research confirms that these two locations are approximately 900 metres apart. Therefore, it is recommended that the municipality initiate a process to identify and purchase a site in this area for the re-location of Station 1 as soon as possible.

This FMP fully supports the transition of the CKFR to a fully integrated, composite fire service operating model. This will require that the design and construction process for the re-location of Station 1 consider the associated parking, infrastructure, and amenities to accommodate both career and volunteer firefighters and the associated fire suppression apparatus.

Recommendation 14: That the CKFR consult with other municipal departments to identify and acquire a site for the re-location of Station 1 to the vicinity of Park Street between William Street South and Lacroix Street.

Recommendation 15: That the re-located Station 1 be designed and constructed to accommodate both career and volunteer firefighters and the associated fire suppression apparatus.

8.7.10.2 Fire Station 2

The analysis indicates that Station 2 is currently located in a good location to sustain the current two-station model, and in the event the municipality implements a third station within the Urban Demand Zone (Chatham). Research indicates that Station 2 does not currently have sufficient space to accommodate the co-location of career and volunteer firefighters and the associated fire suppression apparatus.

Implementing the process to attain a fully integrated, composite fire service operating model will require renovations to the existing Station 2. It is recommended that the completion of these renovation be prioritized and that the design and renovation process consider the associated parking, infrastructure, and amenities to accommodate both career and volunteer firefighters and the associated fire suppression apparatus.

Recommendation 16: That priority be given to the renovation of Station 2 to accommodate both career and volunteer firefighters and the associated fire suppression apparatus.

8.7.10.3 Proposed Third Urban Demand Zone Station (Chatham)

The analysis presented within this FMP identifies the future possible need for a third fire station within the Urban Demand Zone (Chatham) area. Current research indicates that a significant portion of the predicted population growth is forecast to be accommodated through single-detached, semi-detached and some townhouse type developments, including some multi-storey buildings; each of which are high risk occupancies.

The discussion of the evolution from a two-station to a three-station model within the Urban Demand Zone (Chatham) may depend on the pace and nature of future community development that may extend beyond the ten-year planning horizon of this FMP. Ongoing monitoring of planned community growth and the mandatory annual review, and update if required of the municipalities Community Risk Assessment should be utilized to inform the need and schedule for a future third fire station.

The research and fire station modeling to complete this FMP identified an area along Keil Drive South, just south of the Thames River as the optimal location for a third station within Urban Demand Zone (Chatham) area.

Recommendation 17: That the CKFR consult with other municipal departments to develop a process to consider acquiring a site for the proposed third Fire Station located within the Urban Demand Zone (Chatham) area in the vicinity of Keil Drive South, south of the Thames River.

8.7.11 Recruitment and Retention of Volunteer Firefighters

This FMP includes a proposed ‘strategic priority’ that includes:

“The Municipality of Chatham-Kent is dedicated to prioritizing strategies that support the sustainability of a fully integrated, composite fire service operating model including recognition of the historical commitment of those who have dedicated their services to the community in the past”.

This 'strategic priority' speaks directly to the historical dedication and commitment of the volunteer firefighters. Volunteer firefighters have been the primary providers of fire protection services within the Rural Demand Zone since prior to amalgamation.

The proposed strategies to transition to a fully integrated, composite fire service operating model rely on the continued dedication and commitment of the volunteer firefighters, as well as the continued dedication and commitment of the career firefighters. Collectively the career and volunteer firefighters have a unique opportunity to further enhance the efficiency and effectiveness of the CKFR in making the Municipality of Chatham-Kent a safer community to live and work.

This FMP recommends the transition of Station 1 and 2 located in the Urban Demand Zone (Chatham) area to composite (combination) fire stations including both career and volunteer firefighters. This transition will require the support and commitment of the career and volunteer firefighters. Based on our review of the current operation of Station 3 (Wallaceburg) as a composite (combination) fire station we believe this transition is achievable and warranted to further enhance the fire and life safety of the community and the safety of all firefighters within the CKFR.

Research into preparing this FMP indicates that the CKFR stations that are currently staffed with 24 volunteer firefighters (Stations 6, 11, 18 and 19) are consistently (80% of the time) able to deploy a minimum of 3 volunteer firefighters on the first responding apparatus. This compares to only 36% of the time for the other stations staffed with 20 or less volunteer firefighters.

In our view there is an identified need for the CKFR to develop a recruitment and retention strategy to ensure there is a minimum of 24 volunteer firefighters available at all times at each station staffed with volunteer firefighters.

Recommendation 18: That the CKFR develop and implement a recruitment and retention strategy to sustain a minimum complement of 24 volunteer firefighters at all stations staffed with volunteer firefighters.

8.7.12 Recruitment and Retention of Career Firefighters

The success of transitioning to a fully integrated, composite fire service operating model relies significantly on the support of the career firefighters. The strategies presented within this FMP recognize that there is a need to increase the number of full-time staff

assigned to the Operations Division including the proposed first step that includes implementing two on-duty full-time District Chiefs.

This FMP also includes strategies to incrementally increase the number of career firefighters on duty at all times to staff additional front-line apparatus. In our view increasing the number of full-time staff resources assigned to the Operations Division must consider a hiring ratio that will sustain the minimum number of career firefighters on duty at all times and limit the need for overtime.

The CKFR currently has a total complement of 65 carer firefighters. The CKFR utilizes a four-platoon system to deploy the career firefighters to Stations 1, 2 (Chatham) and 3 (Wallaceburg). In Ontario, career firefighters have historically been hired in groups of 20 career firefighters to staff each of the front-line apparatus with 4 firefighters at all times. This strategy is commonly referred to a '1.25 hiring ratio'. To staff a front-line apparatus at all times requires a minimum of 16 career firefighters. Utilizing the 1.25 hiring ratio results in the need to hire 20 career firefighters to sustain the minimum of 16 (16 x 1.25 =20). Historically this hiring ratio allowed for vacation, illness, WSIB and other approved absences based on the number of front-line apparatuses being utilized.

In addition to the 20 career firefighters per station the CKFR also has 5 career 'floater' firefighters that are used to fill-in when one of the career firefighters assigned to a station is absent, or away from work for an extended period of time. In our view the utilization of 'floaters' has been an effective strategy for the CKFR to sustain the minimum number of career firefighters on duty resulting from changes within the fire service in Ontario, without requiring significant increases in overtime costs. For example, Ontario Regulation 253-07 – Presumptive Legislation came into effect on January 1, 2019. This regulation provides for career and volunteer firefighters to be covered by the WSIB for heart-related injuries and prescribed diseases. In Ontario, this regulation has been associated with an increasing number of career firefighters being absent from work for extended periods.

The CKFR's utilization of 'floaters' results in a similar updated hiring ratio as being applied by other municipalities in Ontario. For example, our research indicates that the City of Vaughan recently introduced the implementation of a 1.33 hiring ratio strategy for all new career firefighters. This strategy is intended to sustain the required number of career firefighters on duty at all times. In our view the CKFR should continue to utilize

career 'floater' firefighters and in the future consider implementing a career firefighter hiring ratio of 1.33 career firefighters to sustain the number of career firefight per platoon required to staff front-line apparatus.

Recommendation 19: That the Municipality of Chatham-Kent consider the application of a 1.33 ratio per platoon when hiring future career firefighters.

8.7.13 Proposed Third Urban Demand Zone Station (Chatham)

The analysis presented within this FMP identifies the future possible need for a third fire station within the Urban Demand Zone (Chatham) area. Current research indicates that a significant portion of the predicted population growth is forecast to be accommodated through single-detached, semi-detached and some townhouse type developments, including some multi-storey buildings; each of which are high risk occupancies.

The discussion of the evolution from a two-station to a three-station model within the Urban Demand Zone (Chatham) may depend on the pace and nature of future community development that may extend beyond the ten-year planning horizon of this FMP. Ongoing monitoring of planned community growth and the mandatory annual review, and update if required of the municipalities Community Risk Assessment should be utilized to inform the need and schedule for a future third fire station.

The research and fire station modeling to complete this FMP identified an area along Keil Drive South, just south of the Thames River as the optimal location for a third station within Urban Demand Zone (Chatham) area. This relates to **Recommendation 17**: "That the CKFR consult with other municipal departments to develop a process to consider acquiring a site for the proposed third Fire Station located within the Urban Demand Zone (Chatham) area in the vicinity of Keil Drive South, south of the Thames River."

8.7.14 Recruitment and Retention of Volunteer Firefighters

This FMP includes a proposed 'strategic priority' that includes:

"The Municipality of Chatham-Kent is dedicated to prioritizing strategies that support the sustainability of a fully integrated, composite fire service operating model including recognition of the historical commitment of those who have dedicated their services to the community in the past".

This 'strategic priority' speaks directly to the historical dedication and commitment of the volunteer firefighters. Volunteer firefighters have been the primary providers of fire protection services within the Rural Demand Zone since prior to amalgamation.

The proposed strategies to transition to a fully integrated, composite fire service operating model rely on the continued dedication and commitment of the volunteer firefighters, as well as the continued dedication and commitment of the career firefighters. Collectively the career and volunteer firefighters have a unique opportunity to further enhance the efficiency and effectiveness of the CKFR in making the Municipality of Chatham-Kent a safer community to live and work.

This FMP recommends the transition of Station 1 and 2 located in the Urban Demand Zone (Chatham) area to composite (combination) fire stations including both career and volunteer firefighters. This transition will require the support and commitment of the career and volunteer firefighters. Based on our review of the current operation of Station 3 (Wallaceburg) as a composite (combination) fire station we believe this transition is achievable and warranted to further enhance the fire and life safety of the community and the safety of all firefighters within the CKFR.

Research into preparing this FMP indicates that the CKFR stations that are currently staffed with 24 volunteer firefighters (Stations 6, 11, 18 and 19) are consistently (80% of the time) able to deploy a minimum of 3 volunteer firefighters on the first responding apparatus. This compares to only 36% of the time for the other stations staffed with 20 or less volunteer firefighters.

In our view there is an identified need for the CKFR to develop a recruitment and retention strategy to ensure there is a minimum of 24 volunteer firefighters available at all times at each station staffed with volunteer firefighters. If possible, the total complement of volunteer firefighters assigned to each station should be increased to 25 to 30. In our view maintaining a higher total complement of volunteers at each station would further improve the number of volunteer firefighters responding to each incident, and their turnout time. This relates to **Recommendation 18:** "That the CKFR develop and implement a recruitment and retention strategy to sustain a minimum complement of 24 volunteer firefighters at all stations staffed with volunteer firefighters."

The recruitment and retention of volunteer firefighters is one of the most significant challenges facing municipalities across the country. In response to this challenge the Canadian Association of Fire Chiefs has created the "Answer the Call" program that provides municipalities with information to enhance their volunteer firefighter recruitment. Through our experience across Canada, we have found that there is a large portion of the population that believes volunteer firefighters actually 'volunteer' their time. In most municipalities this is incorrect, volunteer firefighters typically receive some form of remuneration depending on where the municipality may be located. As a result, a large number of municipalities have changed their title of the historical volunteer firefighters to 'paid on call', or 'part-time' firefighters. In many instances this has improved their recruitment of new candidates.

Recommendation 20: That the Municipality of Chatham-Kent consider revising the title of volunteer firefighters to 'Volunteer Paid on Call Firefighters' to further enhance the municipalities volunteer firefighter recruitment program.

8.7.15 Recruitment and Retention of Career Firefighters

The success of transitioning to a fully integrated, composite fire service operating model relies significantly on the support of the career firefighters. The strategies presented within this FMP recognize that there is a need to increase the number of full-time staff assigned to the Operations Division including the proposed first step that includes implementing two on-duty full-time District Chiefs.

This FMP also includes strategies to incrementally increase the number of career firefighters on duty at all times to staff additional front-line apparatus. In our view increasing the number of full-time staff resources assigned to the Operations Division must consider a hiring ratio that will sustain the minimum number of career firefighters on duty at all times and limit the need for overtime.

The CKFR currently has a total complement of 65 carer firefighters. The CKFR utilizes a four-platoon system to deploy the career firefighters to Stations 1, 2 (Chatham) and 3 (Wallaceburg). In Ontario, career firefighters have historically been hired in groups of 20 career firefighters to staff each of the front-line apparatus with 4 firefighters at all times. This strategy is commonly referred to as a '1.25 hiring ratio'. To staff a front-line apparatus at all times requires a minimum of 16 career firefighters. Utilizing the 1.25 hiring ratio results in the need to hire 20 career firefighters to sustain the minimum

of 16 (16 x 1.25 =20). Historically this hiring ratio allowed for vacation, illness, WSIB and other approved absences based on the number of front-line apparatuses being utilized.

In addition to the 20 career firefighters per station the CKFR also has five career 'floater' firefighters that are also used to fill-in when one of the career firefighters assigned to a station is absent, or away from work for an extended period of time. In our view the utilization of 'floaters' has been an effective strategy for the CKFR to sustain the minimum number of career firefighters on duty at all times and minimize the need for overtime.

Changes within the fire service in Ontario such as O. Reg. 253-07 – Presumptive Legislation came into effect on January 1, 2019, have caused further pressure on maintaining the minimum number of firefighters on duty at all times. This regulation includes both career and volunteer firefighters being covered by the WSIB for heart-related injuries and prescribed diseases. In Ontario, this regulation has been associated with an increasing number of career firefighters being absent from work for extended periods.

The CKFR's utilization of 'floaters' results in a similar updated hiring ratio as being applied by other municipalities in Ontario. For example, our research indicates that the City of Vaughan recently introduced the implementation of a 1.33 hiring ratio strategy for all new career firefighters. This strategy is intended to sustain the required number of career firefighters on duty at all times. In our view the CKFR should continue to utilize career 'floater' firefighters and in the future consider implementing a career firefighter hiring ratio of 1.33 career firefighters to sustain the number of career firefighters required per platoon required to staff front-line apparatus. This relates to **Recommendation 19:** "That the Municipality of Chatham-Kent consider the application of a 1.33 ratio per platoon when hiring future career firefighters."

8.8 Operations Division Summary and Recommendations

The delivery of fire suppression and emergency response services requires an effective and efficient command and control structure. Similar to a military, or para-military organizational structure a fire department must maintain a 'command structure' that clearly defines the level of authority and responsibility throughout the department. An effective command structure must be clearly identifiable to internal and external

stakeholders. For example, the OHSA Section 21 Guidance Note 2-1 Incident Command states that "An effective incident command system has a dramatic effect on efficiency, effectiveness of response and firefighter safety in all situations"[50].

The analysis presented within this FMP indicates that the existing organizational structure of the CKFR 'in principle' reflects that of the pre-amalgamation organization of multiple fire departments. In our view the existing organizational structure of the CKFR 'in principle' continues to represent the organizational structure that was required to support the 1998 amalgamation of the City of Chatham, Town of Wallaceburg and seventeen other smaller fire departments. For example, many of the senior officer ranks including 'Station Volunteer Chief' and 'Station Deputy Volunteer Chief' continue to reflect the pre-amalgamation organizational structure.

The CKFR has evolved since amalgamation into one of the largest composite (combination) fire departments in Ontario including over 80 full-time staff and 351 volunteer firefighters. In our view there is an identified need to revise the current organizational structure of the Operations Division of the CKFR to meet the needs of an effective and efficient 'command structure'. In our view this should include revising the existing administrative/operational ranks within the Operations Division to support the proposed fully integrated, composite fire service operating model.

This fire master planning process has identified that the NFPA 1720 Standard - Urban and Rural Demand Zone performance objectives are the appropriate industry standards and best practices for assessing the current and future fire suppression services provided by the CKFR. Analysis of the CKFR existing fire suppression capabilities indicates that the CKFR currently cannot assemble 15 firefighters on scene within a nine-minute response time anywhere within the defined Urban Demand Zone (Chatham) area. However, the CKFR can currently deploy 6 firefighters in a 14-minute response time to 74% of the departments historical call locations.

This fire master planning process has also identified that the majority of planned community growth for the Municipality of Chatham-Kent will be accommodated through development within the existing communities, much of it in the community of Chatham. As a result, it is anticipated that emergency call volume will continue to

[50] OHSA Section 21 Guidance Note 2-1 Incident Command, Background.

increase, including additional fire and life safety risks associated with an expanding building stock that includes more multi-storey and high-risk occupancies over time. These factors further support the need to begin implementing scenarios to further enhance the fire suppression capabilities of the CKFR.

This FMP and the proposed fire suppression scenarios (options) presented within the Operations Division analysis support the proposed fully integrated, composite fire service operating model. This includes implementing strategies to optimize the utilization of all current fire suppression and emergency response resources including career and volunteer firefighters. In our view the new O. Reg. 343/22 – Firefighter Certification provides the foundation for implementing the proposed fully integrated, composite fire service operating model. This new regulation does not differentiate between the skills and competencies required for a career or volunteer firefighter. As such this FMP recommends the incremental increase in both career and volunteer firefighters to sustain the proposed fully integrated, composite fire service operating model.

The fire suppression scenarios presented within this FMP provide strategies (options) to inform Councils decision-making process in determining the level of fire suppression services to be provided within the Municipality of Chatham-Kent. As indicated previously within this FMP this decision-making process should include "a thorough appreciation of your municipality's economic, social and political circumstances"[51].

The following is a summary of the recommendations for the Operations Division.

12. That the Municipality of Chatham-Kent adopt the proposed fire suppression performance objectives presented within the NFPA 1720 Standard including:
    - **Urban Demand Zone (Chatham)** – 15 firefighters arriving on scene within a nine-minute turnout time plus travel time (to 90% of fire suppression incidents).
    - **Rural Demand Zone (Remainder of the Municipality)** – six firefighters arriving on scene within a 14-minute turnout time plus travel time (to 80% of fire suppression incidents).

[51] PFSG 01-01-01 Fire Protection Review Process

13. That the CKFR continue to consult with the Municipality's planning department, monitor and update the list of planning projects as they unfold and as more detailed information becomes available regarding growth areas, population projections and built form.
14. That the CKFR consult with other municipal departments to identify and acquire a site for the re-location of Station 1 to the vicinity of Park Street between William Street South and Lacroix Street.
15. That the re-located Station 1 be designed and constructed to accommodate both career and volunteer firefighters and the associated fire suppression apparatus.
16. That priority be given to the renovation of Station 2 to accommodate both career and volunteer firefighters and the associated fire suppression apparatus.
17. That the CKFR consult with other municipal departments to develop a process to consider acquiring a site for the proposed third Fire Station located within the Urban Demand Zone (Chatham) area in the vicinity of Keil Drive South, south of the Thames River.
18. That the CKFR develop and implement a recruitment and retention strategy to sustain a minimum complement of 24 volunteer firefighters at all stations staffed with volunteer firefighters.
19. That the Municipality of Chatham-Kent consider the application of a 1.33 ratio per platoon when hiring future career firefighters.
20. That the Municipality of Chatham-Kent consider revising the title of volunteer firefighters to 'Volunteer Paid on Call Firefighters' to further enhance the municipalities volunteer firefighter recruitment program.

9.0 Proposed Organizational Structure and Staff Resource Strategy

This FMP has identified several challenges within the existing organizational structure of the CKFR. A number of these challenges can be traced back to amalgamation and the initial transition process to create the CKFR. For example, the amalgamation process sustained the rank of Volunteer Station Chief and Volunteer Deputy Station Chief that in our view mirror the pre-amalgamation organizational structures of the smaller municipalities.

The existing organizational structure of the CKFR, and specifically the operational command structure within the Operations Division is in our experience not conducive to an effective and efficient composite fire service. It is important to recognize that a fire department, regardless of having only career or volunteer firefighters or having both in a composite operating model, requires two core elements, namely:

I. An effective an efficient administrative structure that provides the required organizational leadership, human resources, policy, planning, governance, and financial oversight; and
II. An integrated 'command' organizational structure that includes a clearly defined 'rank structure'. The existing 'rank structure' of the Operations Division is in our view not clearly defined and has existing barriers to achieving the goal of becoming a fully integrated, composite fire service operating model.

The following sections present an overview of the proposed organizational structure and associated staff resource strategies to support the implementation of this FMP.

9.1 Proposed Administrative Support Strategy

The analysis presented within this report has identified the need to consider the implementation of strategies that support the 'right person doing the right job'. In our view this means implementing strategies to ensure that highly trained and skilled technical staff such as Training Officers and Fire Inspectors are able to effectively delegate regular administrative tasks. These tasks may include research, draft report preparation, filing and scheduling. The delegation of these types of tasks would provide

greater flexibility for these technical staff to focus on the priorities related to their expertise.

Our review of the existing administrative support staff and their existing workload capacity indicates minimal opportunity for extending their current services. In our view there is an identified need to hire a minimum of one more additional full-time Administrative Assistant. A review of this strategy should also consider opportunities to delegate dedicated administrative support to the Prevention and Community Safety Division and the Training and Safety Division. In our experience dedicated administrative support provides the opportunity to develop effective and efficient processes with a team environment.

9.2 Proposed Prevention and Safety Division Staff Resource Strategy

The analysis and 'strategic priorities' presented within this FMP support the prioritization of services and programs that optimize the first two lines of defense, including public education and fire prevention, and the utilization of fire safety standards and fire code enforcement. In addition to the proposed Fire Prevention and Community Safety Strategies presented within this FMP it is our view that the Municipality of Chatham-Kent should consider the hiring of one additional full-time Fire Inspector, and one full-time Public Educator.

In our view these additional full-time staff resources are required to facilitate the expansion of the CKFR current prevention and safety initiatives as presented within this FMP, to support the development and implementation of the proposed fire prevention and community safety strategies, and to proactively respond to the 'identified risks' and 'key findings' presented with the recently completed Community Risk Assessment.

9.3 Proposed Training and Safety Division Staff Resource Strategy

Analysis of the existing CKFR training and safety programs identified the need to consider hiring additional career Training Officers, and to consider the implementation of a more defined organizational (rank) structure within the Operations Division to support the delivery of training within the CKFR.

9.3.1 Proposed Additional **Training Officer**

In our view there is a warranted need for the CKFR to increase the number of full-time Training Officers. The CKFR has developed a good foundation for attaining compliance with O. Reg. 343/22 – Firefighter Certification. However, there is still a significant amount of work required by the Training and Safety Division to ensure that all career and volunteer firefighters are able to attain the mandatory requirements of O. Reg. 343/22 – Firefighter Certification for basic firefighting and technical rescues. In addition to this workload there will also be a need to ensure the sustainability of the CKFR comprehensive training program in the future to maintain certifications.

In addition to attaining the required firefighter certifications there is a need for the CKFR to implement a strategy to provide live fire training for all career and volunteer firefighters. The introduction of live fire training will require the presence of a full-time Training Officer to facilitate and oversee this type of training.

Based on our research and internal stakeholder consultation including the career and volunteer firefighter surveys there are a number of other initiatives that require consideration and implementation on behalf of the Training and Safety Division relating to the need to consider the existing workload of the current staff resources available including the following.

Training Audits

Training audits are an effective tool to ensuring consistency throughout the department. In our view training audits are also an effective strategy to assessing the efficiency and effectiveness of current training program's ability to attain the intended skills and competencies required. Conducting regular training audits is also an effective tool to ensuring the applicable OHSA requirements are consistently being applied. The Training and Safety Division does not currently have sufficient staff resource capacity to implement a formal training audit program.

Multi-Station Training

The CKFR currently conducts minimal multi-station training session with the exception of the Superior Tanker Shuttle Accreditation process. In our view there is a need to develop and implement regular multi-station training scenarios to further support the proposed transition to a fully integrated, composite fire service operating model. In the

Urban Demand Zone (Chatham) this should include participation by the career and volunteer firefighters who will be responding together. In the Rural Demand Zone (all other areas) this should include participation from stations staffed with volunteer firefighters who will be responding together more commonly.

In our view there is an identified need to consider the hiring of one additional career Training Officer. This should include hiring an additional career Training Officer who will have the ability to work a flexible work schedule to allow more effective and regular interaction with the volunteer firefighter training schedule.

9.3.2 Proposed Trainer Facilitators

The CKFR has some experience in utilizing the 'train-the-trainer' model that can be directly linked to the utilization of the proposed 'Trainer Facilitators'. In our experience Trainer Facilitators (career and volunteer firefighters) are commonly used to assist the Training Division in delivering technical rescue training and other training initiatives such as first aid and CPR training. Trainer Facilitators can be an effective strategy to increasing the capacity of a Training Division to deliver specific areas of the department's firefighter training program.

Through the implementation process for this strategy the CKFR may be able to identify a number of existing career and volunteer firefighters interested in becoming a 'Trainer Facilitator'. In our view the CKFR should strive to implement the proposed Trainer Facilitators on each of the four career platoons, and in each of the stations staffed with volunteer firefighters.

9.4 Proposed Operations Division Staff Resource Strategy

The existing Operations Division's organizational/rank structure and staff resources, including the roles and responsibilities of Operations Division staff resources to support the department's existing and proposed training programs, were reviewed and analyzed. Through this, a number of existing barriers to supporting the proposed transition to a fully integrated, composite fire service operating model were identified.

The following sections present proposed changes to the existing organizational/rank structure of the Operations Division. The proposed changes prioritize a more effective

and efficient 'rank structure' to support the delivery of emergency services, and to further support the delivery of the proposed enhanced training programs.

9.4.1 Proposed Deputy Chief – Operations Division

The job descriptions of the four current Assistant Chiefs indicate that these four positions "fulfill the role of a Deputy Chief"[52]. The four current Assistant Chiefs are also recognized as members of the department's Senior Management Team, reporting to the Fire Chief. The four current Assistant Chiefs have clearly defined portfolios to address the daily administrative and operational needs of the department, following a functional command system which is overseen by the Fire Chief. This model aims to address the inefficiency of organizational silos, which were a challenge in the department's previous system.

The analysis conducted to prepare this FMP indicates that the workloads of the Assistant Chief positions are approaching or at capacity. As a result, the Fire Chief has assumed additional roles, including operational command, as well as additional administrative issues, as they arise due to a lack of capacity from the Assistant Chiefs. Currently, functions such as operational assurance, discipline, joint agency liaison, EMS and strategy are addressed by the Fire Chief. The Fire Chief also chairs formal command meetings weekly and oversees the multi-disciplined command system.

The daily responsibilities and workload associated with effectively overseeing and leading (commanding) the large Operations Division is substantial and deserves special consideration. The proposed transition to a fully integrated, composite fire service operating model will add further workload to the daily leadership and operational command needs of the Operation Division. In our view consideration should be given to reviewing the current roles, responsibilities and workloads of the Fire Chief and four current Assistant Chief positions in creating a new position of Deputy Chief-Operations. For example, the Deputy Chief could share the workload of the Fire Chief in providing 24 hour operational command coverage. This would result in the implementation of a new

[52] Municipality of Chatham-Kent, Community Development Fire and Emergency Services, Job Description Acting Assistant Chief.

rank (Deputy Chief), but not necessarily an additional person, reporting directly to the Fire Chief. The three remaining Assistant Chief positions could continue to report directly to the Fire Chief.

9.4.2 Proposed Full-time District Chiefs

The analysis presented within this FMP has identified that the daily administrative and operational workload within the Operations Division is not sustainable for the current members of the SMT. This includes the fact that currently the four career Senior Captains, eight career Captains and 16 Volunteer Station Chiefs all report to the Assistant Chief -Operations.

The volunteer firefighter surveys have also indicated that the current administrative workload on the Volunteer Station Chiefs and Volunteer Deputy Station Chiefs is not sustainable. In our experience this is not uncommon for volunteer fire services. This is commonly directly related to areas such as changes in legislation requiring a higher degree of reporting and administration.

Implementation of the proposed full-time District Chiefs would increase the administrative and operational capacity at a senior (rank) level within the CKFR to support the proposed Deputy Chief – Operations, and the overall Operations Division.

The proposed transition to a fully integrated, composite fire service operating model will also result in a higher frequency of interaction between the career and volunteer firefighters at emergency incidents. As indicated within this FMP there are existing cultural challenges within the CKFR that may in part be related to the interaction of career and volunteer firefighters at emergency incidents in the past. These may in part be related to the current CKFR rank structure that includes Volunteer Station Chiefs and Volunteer Deputy Fire Chiefs who may be required to respond with career Senior Captains and Captains.

The implementation of this strategy would require the Municipality to hire eight new full-time staff to facilitate the implementation of the two proposed full-time District Chiefs being on duty at all times. The implementation of the two proposed-on duty District Chief positions would include dividing the municipality into two geographical districts (e.g. North Command and South Command, or East Command and West Command). Each of the two proposed ‘command districts’ should include

approximately 50% of the department's current fire station catchment areas, representing approximately 50% of the CKFR current fire suppression staff resources (career and volunteer firefighters). Each of the two proposed-on duty full-time District Chiefs would be directly responsible for all fire suppression staff (career and volunteer firefighters) assigned to their command areas.

This strategy includes assigning one of the proposed full-time District Chiefs to Station 1, and the other to Station 2. This would result in a significant increase in the minimum number of firefighters on duty at all times within the defined Urban Demand Zone from the existing eight to ten. The proposed full-time District Chiefs would be directly responsible for ensuring the delivery of all required training initiatives to the firefighters (career and volunteer) assigned to their respective command district.

In our view the implementation of the proposed full-time District Chiefs is an integral element of transitioning to the proposed fully integrated, composite fire service operating model. This strategy should be prioritized as the first step towards supporting the success of this transition.

9.4.3 Proposed Transition from Volunteer Station Chiefs, and Deputy Station Chiefs

The current volunteer Station Chiefs and Deputy Station Chiefs and their predecessors have been instrumental to the historical delivery of fire suppression services within their respective communities, and the transition of the CKFR into its current form. In our view there is a need to consider the implementation of a strategy that would transition away from or cease to utilize these positions (ranks) in the future.

These ranks currently present a barrier to an effective and efficient 'command structure' within the proposed fully integrated, composite fire service operating model. An effective and efficient 'command structure' should be represented by an incrementally increasing level of authority, skills, and experience to provide the required leadership and function of "Incident Command" at an emergency incident.

In our experience there are a multitude of strategies that could be utilized either individually or department wide to recognize the historical dedication and commitment of the current volunteer Station Chiefs and Deputy Station Chiefs as part of the implementation of this strategy.

9.4.4 Career and Volunteer Captains

In our experience the rank of Captain represents the core component of an effective and efficient 'command structure' within a fire department. The rank of Captain (career or volunteer) is commonly responsible for a station and all staff (career or volunteer) assigned to that station, or a single fire suppression apparatus and all staff (career or volunteer) assigned to that apparatus.

The current Company Officer Program is designed to train and qualify both career and volunteer Captains (Company Officers) to qualify for the NFPA 1021 – Standard for Fire Officer Professional Qualifications: Fire Officer Level I certification as required by O. Reg. 343/22 – Firefighter Certification. Once completed all career and volunteer Captains will be certified to the same level of skills and competencies. In the future the only difference between career and volunteer Captains will be their individual years of experience and their labour relations affiliations.

The proposed Operations Division Organizational Rank Structure includes sustaining the rank of career and volunteer Captains. Career Captains would continue to be in command of the station they are assigned as well as the apparatus and firefighters assigned to that apparatus. For composite stations the career Captain assigned to that station would be considered in command of that station (facility) whereas the volunteer Captains, would be considered to have command over the apparatus they are assigned to for providing emergency response, and the volunteer firefighters under their command.

Career Captains would continue to be directly responsible for the delivery of all mandatory training to the career firefighters assigned to them (i.e., their crew) as directed by the proposed full-time District Chiefs and as prepared by the Training Officers.

The Volunteer Captains assigned to each station would be required to coordinate the delivery of all mandatory training to the volunteer firefighters assigned to their station as directed by the proposed full-time District Chiefs and as prepared by the Training Officers.

9.4.4.1 Proposed Acting Captain Strategy

The rank of Acting Captain has emerged throughout the fire service in Ontario as an alternative to the historical utilization of the rank of 'Lieutenant'. Although the roles and responsibilities may be similar the rank of Acting Captain aligns more effectively with succession planning initiatives.

In our view the CKFR should consider the implementation of career and volunteer Acting Captains. This would create a new 'rank' within the Operations Division to increase the number of Company Officers, and therefore the total number of qualified supervisors as defined by the OHSA. In our view the CKFR should consider creating an Acting Captain position for every current and proposed career and volunteer Captain. In addition to providing a greater depth of qualified Company Officers within the CKFR this strategy would further enhance succession planning within this division.

In our view where possible the CKFR should consider integrating the roles and responsibilities of the proposed Trainer Facilitators with those of the proposed Acting Captains. In our experience the rank of Acting Captain also presents an opportunity to integrate a level of command authority with the delivery of training initiatives.

9.4.5 Proposed Operational Command Structure

Through implementation of the revisions to rank and organization, outlined above, CKFR could provide full-time (24 hours per day, 365 days per year) coverage of an operational command structure including the following:

- Fire Chief/Deputy Fire Chief (1)
- Assistant Chief (1)
- District Chief (2)
- Captain (1 per station)

Recommendation 21: That the CKFR consider the proposed organizational structure and staff resource strategies in developing a comprehensive implementation plan for consideration and approval by Council.

9.4.6 Proposed Additional Career Firefighters

The proposed emergency response deployment strategies presented within this FMP are intended to illustrate a strategy that prioritizes the 'continuous improvement' of fire suppression services as recommended by the Commission of Fire Accreditation International (CFAI). The scenarios presented illustrate incremental strategies, or a 'roadmap' for the future of the CKFR Operations Division. The following sub-sections identify the additional career firefighters that will be required to implement two of the proposed scenarios.

9.4.6.1 Proposed Scenario 5

The implementation of this scenario would result in the CKFR having the ability to partially staff a second front-line apparatus at the relocated Station 1. The result is predicted to be a 46.7% improvement in the CKFR ability to assemble 15 firefighters on scene in a nine-minute response time within the Urban Demand Zone (Chatham) area. The implementation of this scenario will require the municipality to hire 12 additional career firefighters to always staff a second front-line apparatus at the relocated Station 1 with two career firefighters on duty.

9.4.6.2 Proposed Scenario 6

The implementation of this scenario would result in the CKFR having the ability to fully staff a second front-line apparatus at the relocated Station 1. The result is also predicted to be a 46.7% improvement in the CKFR ability to assemble 15 firefighters on scene in a nine-minute response time within the Urban Demand Zone (Chatham) area. The benefit of implementing this scenario is related to further enhancing the CKFR's ability to assemble a larger total number of firefighters on scene than they are currently able to within a nine-minute response time. The CKFR is not currently able to assemble 15 firefighters on scene in a nine-minute response time in this area, with the implementation of this scenario the CKFR would be able to assemble 14 firefighters on scene in a nine-minute response time in this area to 83.5% of the historical emergency call locations.

The implementation of this scenario will require the municipality to hire a further ten additional career firefighters to always staff the second front-line apparatus at the relocated Station 1 with four career firefighters on duty.

9.5 Proposed Organizational Structure and Staff Resource Strategy Summary

This proposed Organizational Structure and Staff Resource Strategy identifies the proposed changes to the current CKFR organizational structure and staff resource requirements of the CKFR resulting from the analysis to prepare this FMP. Collectively the proposed changes reflect a pathway to further enhancing the administrative and operational capabilities of the CKFR. The proposed changes also support the objective of becoming a fully integrated, composite fire service operating model.

The recommendation within this section is:

21. That the CKFR consider the proposed organizational structure and staff resource strategies in developing a comprehensive implementation plan for consideration and approval by Council.

10.0 Apparatus and Equipment

The CKFR operates a large fleet of vehicles that include specialty fire suppression apparatus such as pumpers and aerial trucks, support vehicles such as pickup trucks and cars and a wide range of fire suppression/rescue equipment such as self-contained breathing apparatus, hose, vehicle extrication tools and firefighters protective clothing.

The Municipality's Fleet Services Division oversees the purchasing, maintenance, and repair of the CKFR fleet and works closely with the Assistant Fire Chief – Logistics in managing the department's fleet and equipment needs.

The OFM developed **PFSG 04-07-12 – Types of Apparatus and Equipment** to provide communities, such as the Chatham-Kent, with information pertaining to industry best practices in determining the types of fire apparatus and equipment that should be available within the community. This guideline identifies several factors for consideration in determining the required apparatus and equipment for a fire department.

- Demands on municipal resources force all communities to re-evaluate the level and nature of services they provide.
- Traditional approaches to the delivery of fire suppression with full-size triple combination pumpers may not necessarily be the most appropriate way to deliver this component of community fire safety, particularly in small communities with limited availability of firefighting personnel.
- The primary mission of all fire departments should be to ensure that the community is provided with an optimal level of fire protection in a cost-effective and efficient manner. This optimal level may require a much greater emphasis on fire prevention and public education activities - with residents being responsible for protection within their own residences.
- New technology provides options.
- Must be appropriate to the fire suppression needs of the community.
- Dependent upon availability of human resources, needs to work closely with neighbouring communities.
- Focus must still be on community fire safety initiatives.

10.1 Major Fire Suppression Apparatus

The CKFR operates a major fire suppression apparatus fleet that reflects the needs of a modern fire service and is aligned with the size of the department and the services it provides. This fleet reflects what would be expected based on the fire risks present within the community.

PFSG 04-07-12 references the **NFPA 1901 Standard for Automotive Fire Apparatus (2009 Edition)** as a standard that should be considered in determining the appropriate major fire suppression apparatus for a community. The NFPA 1901 standard was updated in 2016 and now includes the following definitions of major types of fire suppression apparatus.

- **Pumper:** Fire apparatus with a permanently mounted fire pump of at least 750 imperial gallons per minutes (igpm) (3,000 litres per minute [L/min]) capacity, water tank and hose body whose primary purpose is to combat structural and associated fires.
- **Initial Attack Apparatus:** Fire apparatus with a fire pump of at least 250 igpm (1,000 L/min) capacity, water tank, and hose body whose primary purpose is to initiate a fire suppression attack on structural, vehicular, or vegetation fires and to support associated fire department operations.
- **Mobile Water Supply Apparatus (Tanker**): A vehicle designed primarily for transporting (pick-up, transporting, and delivering) water to fire emergency scenes to be applied by other vehicles or pumping equipment.
- **Quint:** Fire apparatus with a permanently mounted fire pump, a water tank, a hose storage area, an aerial ladder or elevating platform with a permanently mounted waterway, and a complement of ground ladders.
- **Aerial Device:** A vehicle equipped with an aerial device, elevating platform, or water tower that is designed and equipped to support firefighting and rescue operations by positioning personnel, handling materials, providing continuous egress, or discharging water at positions elevated from the ground.
- **Special Services Fire Apparatus:** A multipurpose vehicle that primarily provides support services at emergency scenes.

The CKFR currently operates a fleet of major fire suppression apparatus that includes 21 pumpers, seven aerial devices, 17 tankers, and 19 rescue units. CKFR staff, in consultation with the Manager of Fleet Services, prepared a report to Council on October 18, 2019, presenting a fleet rationalization strategy. This report references the major fire suppression apparatus replacement challenges within the CKFR resulting from the 1998 amalgamation process.

The 2019 fleet rationalization strategy references the importance of complying with the applicable NFPA 1901 standard as well as the FUS recommendations. FUS recommends that all major fire suppression apparatus meet either the **Underwriters Laboratory of Canada standard (ULC-S515 04)** or the **NFPA 1901-Standard.** FUS recommends the following major fire apparatus replacement guidelines for municipalities.

- Major size cities: 12 to 15 years, with an additional five years in reserve;
- Medium size cities: 15 years, with an additional five years as backup, and five years in reserve; and
- Smaller municipalities: 20 years, with an additional five years second line or reserve.

The 2019 Fleet Rationalization Report indicates that the CKFR, with the support of Fleet Services, has prioritized the standardization of the major fire suppression apparatus fleet and the implementation of a 20-year replacement strategy for all major fire suppression apparatus. This strategy is consistent with the requirements of the applicable NFPA and FUS requirements.

Recommendation 22: That the CKFR continue to work with Fleet Services to develop and implement a 20-year major fire suppression apparatus standardization and fleet renewal strategy.

10.1.1 Major Fire Suppression Apparatus Fleet Rationalization

The 2019 Fleet Rationalization Report provided a procurement strategy for the replacement of several major fire apparatus, including six pumpers, one aerial device and two tankers to be purchased and delivered over a three-year period. Subject to the approval of Council the recommendations and proposed actions presented within this FMP will result in the implementation of a fully integrated, composite fire service operating model.

Transitioning to the proposed fully integrated, composite fire service operating model should also include a further assessment (fleet rationalization) of the major fire suppression apparatus fleet needs of the CKFR to support this enhanced fire suppression deployment model. This assessment should consider the requirements of O. Reg. 714/94 – Protective Equipment.

One strategy this further fleet rationalization process should consider is a transition to multi-use apparatus such as 'pumper rescues.' These vehicles provide the same operational effectiveness as the historical single-use 'pumpers' and 'rescues' through the utilization of new technologies and apparatus design methods. This apparatus replacement/renewal strategy has been successfully implemented by multiple municipalities across the province.

Recommendation 23: That the CKFR, in consultation with Fleet Services, conduct a further major fire suppression apparatus fleet rationalization process, including consideration of pumper rescues.

The proposed major fire suppression apparatus fleet rationalization process should also consider the future apparatus requirements for the proposed third urban fire station presented in this FMP. This fleet rationalization process should consider the type of apparatus that would be required as well as the options to either utilize an existing apparatus or the need for the purchase of a new apparatus.

Recommendation 24: That the CKFR, in consultation with Fleet Services, consider the major fire suppression apparatus needs of the proposed third urban fire station as part of the proposed major fire suppression apparatus fleet rationalization process.

10.1.2 Reserve Major Fire Suppression Apparatus

Maintaining a fleet of reserve major fire suppression apparatus reflects current industry best practices and is supported by the Fire Insurance Underwriters as due diligence on behalf of the municipality. The term "reserve" can be interpreted to mean this apparatus may not necessarily be required daily. In our experience the term "service ready" is more applicable to this category of major fire suppression apparatus. It should be recognized that this apparatus may be needed under emergency conditions to sustain the level of Council-approved fire suppression services in the event of an

apparatus breakdown. Service-ready apparatus also provides greater flexibility in the event of a major incident.

The proposed major fire suppression apparatus fleet rationalization process should also consider the service-ready major fire suppression apparatus needs of the CKFR. This process should consider the number and type of major fire suppression apparatus required to maintain the level of fire suppression services approved by Council, and the historical maintenance and repairs records of the CKFR to determine the number of service ready major fire suppression apparatus that should be available.

Recommendation 25: That the CKFR, in consultation with Fleet Services, considers the service-ready major fire suppression apparatus needs of the CKFR as part of the proposed major fire suppression apparatus fleet rationalization process.

10.2 Support Vehicle Fleet

In addition to the fleet of major fire suppression apparatus, the CKFR also operates a large fleet of support vehicles, including pickup trucks, cars, boats, and an all-terrain vehicle. Fleet Services also provides support to the CKFR in purchasing, repair, and maintenance of the support vehicle fleet. Our review indicates that the current support vehicle fleet is consistent with and represents current industry best practices of a modern fire department.

At the time of preparing this report Fleet Services was in the process of tendering for the replacement of three existing support vehicles. The specifications for these three vehicles are for electric power. This is a further example of the application of industry best practices.

10.3 Fleet Maintenance and Repair

As indicated above Fleet Services is responsible for the preventive maintenance and repair of the major fire suppression apparatus and support vehicle fleet operated by the CKFR. These services are provided by a highly qualified team of mechanics and technicians.

With the introduction of O. Reg. 343/22-Firefighter Certification in Ontario, there has been a heightened awareness of the applicable training qualifications and certification of all staff within a fire department. Although this regulation does not specifically apply

to staff responsible for the repair and maintenance of major fire suppression apparatus, it does introduce the concept of mandatory compliance with the training standards authored by the NFPA. In our view, the implementation of this new regulation and its mandatory training and certification requirements warrants the need for municipalities, such as Chatham-Kent, to review the training and qualifications of all staff who may be associated with the delivery of fire protection services.

The NFPA 1910-Standard for the Inspection, Maintenance, Refurbishment, and Retirement of In-Service Emergency Vehicles and Marine Firefighting Vessels (2024 Edition) is considered the current industry best practice for fire department fleet maintenance and repair. In our view, the CKFR, in consultation with Fleet Services, should review the staff training qualifications and certifications of all Fleet Services staff as they compare to this standard and, where applicable, consider developing a strategy to for the municipality comply with this standard.

Recommendation 26: That the CKFR, in consultation with Fleet Services, review the new NFPA 1910-Standard for the Inspection, Maintenance, Refurbishment, and Retirement of In-Service Emergency Vehicles and Marine Firefighting Vessels (2024 Edition) and consider developing a strategy to comply with its requirements including staff training and certification.

The CKFR has several SOG's related to apparatus and equipment maintenance and repairs. These SOG's define the responsibilities of CKFR personnel to regularly check all apparatus and equipment. Utilizing check sheets, CKFR personnel conduct the checks and then report any deficiencies to the Assistant Chief - Logistics. This information is then forwarded to Fleet Services if required.

Research and stakeholder consultation to develop this FMP indicate that the process to document the required maintenance and repairs of the CKFR fleet and equipment is out of date. This process does not meet the records management needs of both departments and does not reflect current industry best practices. There is an identified need to review the current records management process for these activities and consider options for implementing a more effective and efficient process. This process should include consideration of OHSA Firefighters Guidance Note 1-2 Apparatus Inspections and Maintenance Program.

Recommendation 27: That the CKFR, in consultation with Fleet Services investigate options for the implementation of an enhanced apparatus and equipment maintenance and repair internal work order process.

10.4 Equipment

The CKFR is a large composite fire service that requires an extensive inventory of equipment such as firefighter protective clothing (bunker gear), self-contained breathing apparatus (SCBA), firefighting hose and nozzles, ladders, automobile extrication tools, in addition to a wide range of equipment required for the specialized rescue services provided. Life cycle planning for the replacement of this equipment is essential to ensure the equipment is replaced in a timely manner and when the equipment has reached the end of its life cycle and projected expiry date as required by the applicable industry standards or regulations.

Research and stakeholder consultation to develop this FMP indicate that the CKFR has not been able to standardize the fire suppression equipment currently being used. In part, this can be attributed to the large amount of equipment that has remained in use since prior to amalgamation, and the financial commitment required to implement an equipment standardization and replacement strategy

The development and implementation of an equipment standardization and replacement strategy should be considered as a key element of the transition process to the implementation of a fully integrated, composite fire service operating model. This strategy should prioritize the following firefighter life safety equipment.

10.4.1 Firefighter Protective Clothing (Bunker Gear)

CKFR SOG 1-1 Use, Care and Maintenance of Firefighter Personal Protective Equipment provides instructions to all firefighters regarding the use, wear and maintenance of personal protective clothing and equipment, including bunker gear. This SOG does not reference a life cycle replacement plan as prescribed by the OHSA Firefighters Guidance Note 4-8 Care, Maintenance, Inspection and Replacement of Structural Fire Fighting Personal Protective Equipment.

The NFPA 1851 Standard on Selection, Care and Maintenance of Protective Ensembles for Structural Firefighting and Proximity Fire Fighting is the recognized industry best

practice for firefighter protective clothing. This standard is also referenced in the OHSA Firefighters Guidance Note 4-8 and should be considered in developing fire suppression equipment standardization and life-cycle replacement strategy.

10.4.2 Self-Contained Breathing Apparatus

Self-Contained Breathing Apparatus (SCBA) are utilized by firefighters (career and paid on call) when entering any form of hazardous environment. Standard Operating Procedure #10 – Respiratory Protection Plan provides a comprehensive overview of the department's current respiratory program to ensure the safety of all personnel. This program complies with the requirements of the OHSA Section 21 Firefighters Guidance Note -Respiratory Protection Program. The NFPA 1852 Standard on Selection, Care, and Maintenance of Open Circuit Self-Contained Breathing Apparatus is the current industry best practice for SCBA.

The NFPA 1851 and 1852 standards are currently under review and will be consolidated into the new NFPA 1850 Standard on Protective Ensembles for Structural and Proximity Firefighting and Self-Contained Breathing Apparatus in 2025.

Recommendation 28: That the CKFR, in consultation with Fleet Services, develop and implement an equipment standardization and life cycle replacement strategy.

10.5 Fleet and Equipment Summary

The CKFR requires a large fleet of fire suppression and support vehicles to deliver the fire protection services authorized by Council. The CKFR also requires a significant inventory of equipment to ensure the safety of all personnel, including full-time staff and paid on call firefighters, and to provide the fire suppression and rescue services authorized.

The CKFR and Fleet Services have developed a positive relationship in managing the fleet and equipment procurement and maintenance process. In our experience, this relationship represents a current municipal best practice in fire department procurement and maintenance practices.

A review of the current fleet and equipment operated by the CKFR supports the following recommendations and actions for consideration.

22. That the CKFR continue to work with Fleet Services to develop and implement a 20-year major fire suppression apparatus standardization and fleet renewal strategy.
23. That the CKFR, in consultation with Fleet Services, conduct a further major fire suppression apparatus fleet rationalization process, including consideration of pumper rescues.
24. That the CKFR, in consultation with Fleet Services, consider the major fire suppression apparatus needs of the proposed third urban fire station as part of the proposed major fire suppression apparatus fleet rationalization process.
25. That the CKFR, in consultation with Fleet Services, considers the service-ready major fire suppression apparatus needs of the CKFR as part of the proposed major fire suppression apparatus fleet rationalization process.
26. That the CKFR, in consultation with Fleet Services, review the new NFPA 1910-Standard for the Inspection, Maintenance, Refurbishment, and Retirement of In-Service Emergency Vehicles and Marine Firefighting Vessels (2024 Edition) and consider developing a strategy to comply with its requirements including staff training and certification.
27. That the CKFR, in consultation with Fleet Services investigate options for the implementation of an enhanced apparatus and equipment maintenance and repair internal work order process.
28. That the CKFR, in consultation with Fleet Services, develop and implement an equipment standardization and life cycle replacement strategy.

11.0 Communications

The Chatham-Kent Police Services (CKPS) currently provides emergency call taking and fire dispatching on behalf of the CKFR. The CKPS Emergency Communications Centre is responsible for receiving all 911 emergency calls and dispatching the required CKFS based on predetermined emergency response protocols. There is currently no formal service agreement in place between the CKPS and the CKFS outlining the roles and responsibilities of each organization and the performance objectives for the emergency call taking and fire dispatching of CKFR personnel and emergency response apparatus.

11.1 Fire Service Communication Performance Benchmarks

The applicable performance benchmarks for fire service emergency call taking and fire dispatching are contained within the NFPA 1225 Standard for Emergency Services Communications (2022 Edition). As part of the NFPA's recent consolidation program the new 1225 Standard represents the consolidation of the previous NFPA 1221 and NFPA 1061 Standards.

The NFPA Standard defines the 'AHJ' as "An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, and installation, or a procedure"[53].

In our view the Municipality of Chatham-Kent should request a legal interpretation of who, or what organization, is the AHJ over the delivery of the fire service emergency call taking and fire dispatching within the Municipality of Chatham-Kent. As the CKPS and the CKFS are both funded and operated by the Municipality it is unclear whether the Municipality, the CKPS or the CKFS would be deemed the AHJ. Our rationale for suggesting this legal review is that there have been a number of investigations in Ontario related to the level of staff training, and roles and responsibilities of emergency call takers and fire dispatchers in recent years.

[53] NFPA 1225 Standard for Emergency Services Communications (2022 Edition) Chapter 3 Definitions, 3.2.2* Authority Having Jurisdiction.

The new O. Reg. 343/22 – Firefighter Certification also includes the mandatory training of 'Emergency Communicators Level I: Taking Emergency Calls' and 'Emergency Communicators Level II: Taking Emergency Calls and Dispatch Emergency Vehicles'. This new mandatory training and certification must be completed by July 1, 2026. In our view this would include all current CKPS personnel who facilitate these roles. However, that is our reason for suggesting a legal interpretation to determine which organization would be deemed the AHJ.

Recommendation 29: That the Municipality of Chatham-Kent seek a legal interpretation to determine the Authority Having Jurisdiction in providing emergency call taking and fire dispatching of CKFR staff and apparatus, and the application of O. Reg. 343/2 – Firefighter Certification to Emergency Communicators.

11.1.1 Emergency Call Taking and Fire Dispatching Performance Objectives

The NFPA 1225 Standard includes a number of emergency call taking and fire dispatching performance objectives that directly relate to the efficiency and effectiveness of a CKFR emergency response. In our view these performance objectives should apply to the services being provided by the CKPS Emergency Communications Centre. These include the following operating procedures included in the NFPA 1225 Standard.

11.1.1.1 NFPA 1225 – Section 15.4 Operating Procedures

- 15.4.1 – Ninety percent of events received on emergency lines shall be answered within 15 seconds, 95%of events shall be answered within 20 seconds.
- 15.4.2 – Where emergency events are transferred, the transfer process shall not exceed 30 seconds 90% of the time.
- 15.4.4 – Emergency event processing for the highest prioritization level emergency events listed in 15.4.4.1 through 15.4.4.2 shall be completed within 60 seconds, 90% of the time (this includes fire involving, or potentially extending to a structure, an explosion, or other calls as determined by the AHJ).

11.2 Proposed Communications Agreement

In our view there is an identified need for the CKFS and the CKPS to formalize an agreement for the provision of emergency call taking and fire dispatching. Current

industry best practices indicate that this agreement should clearly define the roles and responsibilities of each organization including the application of the NFPA 1225 Standard performance objectives, and O. Reg./ 343 – Firefighter Certification applicable requirements.

In our view the proposed agreement should also reference the required reporting procedures and process for providing all data related to the application of the performance objectives, including an event history for all CKFR emergency incidents. At a minimum this data should be provided monthly to the CKFR, or as regular agreed to by both organizations.

Recommendation 30: That a formal agreement for the delivery of emergency call taking and fire dispatching services be developed by the CKFR and CKPS.

11.3 Communications Services Review

Through the consultation process of this fire master plan it was identified that CKFR aims to apply technology-based solutions to improve and enhance dispatch protocols, emergency response efficiencies and data collection/data management methods. Input from the staff interviews identified potential barriers and challenges for the current dispatch provider to align systems and software with the potential technology needs and improvements being planned by CKFR. As a contracted service, there would be a benefit to conducting a review of existing dispatch services and identification of potential options for alternate service delivery, if required.

Recommendation 31: That CKFR conduct a review of dispatch needs, services and solutions provided by the existing provider and conduct an investigative review of potential service delivery options/alternatives.

11.4 Next Generation 9-1-1

The CRTC has announced its determinants on the implementation and provision of Next Generation (NG 9-1-1) networks across Canada. Telecom Regulatory Policy CRTC 2017-182 released on June 1, 2017, indicates the following:

> "Canadians depend on the provision of reliable and effective 9-1-1 services to seek help in an emergency. As technology and consumers' needs evolve, so do consumers' expectations related to 9-1-1 services. In the coming years,

telecommunications networks across Canada, including the networks used to make 9-1-1 calls, will continue to transition to Internet Protocol (IP) technology. This 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 (NG 9-1-1) 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."

In this decision, the Commission is setting out its determinations on the implementation and provision of NG 9-1-1 networks and services in Canada. This will require coordination and collaboration between numerous stakeholders, including the Commission; telecommunications service providers (TSP) that provide 9-1-1 services; 9-1-1 network providers; the CRTC Interconnection Steering Committee; federal, provincial, territorial, and municipal governments; emergency responders; and public safety answering points (PSAP). As such, in this decision, the Commission is making a number of recommendations in which all stakeholders will have a role to play, including the establishment of a national PSAP and emergency responder coordinating body."[54]

Our review of the most recent Next Generation 911 – Project Update Report indicates that the implementation of the required infrastructure for this project is on target for completion as scheduled.

11.5 Communication Summary

The analysis presented within this section identifies the need for the Municipality to review and consider a number of evolving issues related to the provision of emergency call taking and fire dispatching services. The following is a summary of our recommendations for communications.

29. That the Municipality of Chatham-Kent seek a legal interpretation to determine the Authority Having Jurisdiction in providing emergency call taking and fire dispatching of CKFR staff and apparatus, and the application of O. Reg. 343/2 – Firefighter Certification to Emergency Communicators.

[54] Telecom Regulatory Policy CRTC 2017-182.

30. That a formal agreement for the delivery of emergency call taking and fire dispatching services be developed by the CKFR and CKPS.
31. That CKFR conduct a review of dispatch needs, services and solutions provided by the existing provider and conduct an investigative review of potential service delivery options/alternatives.