City of Wetaskiwin

Fire Department Master Plan 2023

Wetaskiwin
ALBERTA, CANADA

WETASKIWIN FIRE RESCUE

EMG Emergency Management Group

EXECUTIVE SUMMARY

This Fire Department Master Plan (FDMP) encompasses a comprehensive review of the Wetaskiwin Fire Service's (WFS) strengths, weaknesses, opportunities, and challenges. This FDMP consists of a review of the community (through the development of a separate Community Risk Assessment (CRA) report), along with identifying current and future population statistics and anticipated community growth. By conducting these reviews, the Emergency Management Group (EMG) developed this 10-year FDMP for the WFS.

Benefits of Creating a Master Plan

The benefits of planning are many, but the key advantages are:

- Having a clearer vision of what future needs are to be implemented and when,
- A guide that includes options and budgetary estimates for implementation,
- Prioritization of each project, and
- The ability to communicate with staff and internal and external stakeholders about the organization's future goals.

The recommendations within this FDMP document have been submitted to provide a set of strategies and goals for implementation that are aimed at assisting the Wetaskiwin Council in making decisions relating to the efficient allocation of WFS resources and staffing. The recommendations provided by EMG have been broken down according to the following timelines:

- Immediate: 0 – 1 year, which should be addressed urgently due to legislative or health and safety requirements, or other immediate needs
- Short-term: 1 – 3 years
- Mid-term: 4 – 6 years
- Long-term: 7 – 10 years
- Extended-term: 11 – 20 years

Ultimately, the implementation of the recommendations will depend on the direction that the City Council provides, as well as the allocation of associated resources and the ability to move forward with the related recommendations contained within the document.

Scope of Requirements

The scope of work includes, but it not limited to:

- Collect and interpret original and third-party data, and review reports and plans published by the city and other agencies. (e.g., City of Wetaskiwin's Emergency Plan, QMP, Standard Operating Guidelines)
- Consult with City staff, the public, local stakeholders, and Mayor & Council, including scheduling and leading public open houses and stakeholder meetings and attending Committee of the Whole and regular Council meetings.
- Prepare draft digital copies, and digital and printed hard copies of the final FDMP document.

Deliverables

While the main deliverable will be the final copy of the FDMP, as part of creating that document, the Proponent will, either independently or as part of a larger milestone, be responsible for:

Data Collection and Analysis

The Proponent will gather information from past reports and stakeholders to analyze and model, at minimum, the following data, both through original studies and/or using up-to-date information from the agencies:

- Paid-On-Call Implementation Plan review
- Long-term staffing plan
- Long-term apparatus replacement plan
- 10-minute response time feasibility
- Fire Station location and response times
- Duty Officer and Duty Crew Scheduling
- First responder program statistics
- Dispatching service agreements
- Fire Underwriters Survey - Public Fire Protection Classification ratings and reports

Policy-Related Planning

The Proponent will compile data and information from studies and consultation to identify and evaluate the Fire Department Operations and Administration, and will include the following policy-based recommendations and input within the FDMP document:

- Document key influences

- Recommend requirements for facilities and amenities such as training grounds and long-term planning.
- Identify emerging options/ trends that will influence Fire Department recruitment and retention.
- Review the existing Standard Operating Guidelines (SOGs) used within the City and recommend changes that better suit both the existing and projected new policies.

Capital Improvement Project Planning

The Proponent will analyze existing and projected forecast for the City's capital improvement framework for the next twenty years.

The Proponent will:

- Outline funding strategies for establishing capital improvements and operation and maintenance programs.
- Prioritize projects in terms of time frames (1-year, 5-year, 10-year, 15-year, 20-year) to guide long-range financial planning and funding assistance applications.
- Provide recommendations for amending the Paid-On-Call implementation. Long-term staffing, long-term apparatus replacement, response times.

Summary Overview of Recommendations

Based on the information received during the meetings, review of supplied documentation, and reference to industry standards and best practices, there are 35 recommendations for consideration by the fire chief, senior management, and council to assist in the implementation of the plan.

More information regarding each recommended option can be found within the section from which it is derived. Each recommendation noted in the following chart has been presented in the order of timeline for implementation, along with estimated cost and a brief rationale for the recommendation. This will assist the Fire Chief and Council in identifying budgetary needs for any recommendations requiring significant investments.

It must be emphasized that these cost estimates can vary significantly based on when the option is implemented and the level of implementation, along with what is eventually recommended by the Fire Chief.

***Note**: A chart entailing all the recommendations, timelines for implementation, estimated costs, and rationale in the order that they are presented within the document can be found in Section 8.*

Recommendations

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
16	That the fire service should not only keep the full-time firefighters in place; they should also consider enhancing opportunities in advancing the value of such a component for community fire safety.	Ongoing budgeting of the full-time firefighters (as noted in the 2023 budget)	Ongoing	The utilization of the full-time complement of firefighters is providing the City of Wetaskiwin with a more efficient and effective response component during the weekday operations (in support of the paid-on-call firefighters). Further utilization of these full-time firefighters to assist with fire prevention, public education, training, equipment checks, and maintenance is a good investment in staff. *This investment of having the three full time personnel can be seen by the additional notes added to several of the recommendations, such as #4, 5, 7, 8, 14, 16 and 26.*

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
4	That a full accounting of time spent on administrative duties be recorded to identify when the addition of a part of full-time person may be needed for administrative duties. *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Staff time for the Initial Review	Immediate (0-1 year) ongoing	Although the administrative division would benefit from the inclusion of even a part-time administrative assistant, it is understood that the inclusion of the full-time response component has provided a greater overall benefit to the department and the community. However, the administrative duties and related records management needs should not be overlooked.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
5	That the Wetaskiwin Fire Service expand and formalize its Public Education activities by identifying and appointing two part-time (paid-on-call) public education officers (one in each of its two stations) from within their existing (paid-on-call) staff complement to work collaboratively with the fire chief to develop a comprehensive fire safety education program for the community. *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Staff Time and cost (wage adjustment) for related training and certification	Immediate to Short-term (0-3 years) ongoing	The two "new" public educators should work collaboratively and with a dedicated budget and programming expectations to develop and deliver local programming, notably around smoke alarm awareness, home escape planning and carbon monoxide alarm awareness, along with specific fire cause prevention messaging more fully. As the community grows, transitioning the public education role to a dedicated full-time position should be considered – likely long-term horizon.
15	To support the retention of the paid-on-call firefighters, a full review of their compensation (pay per hour), along with pay incentives for those taking on more duties and responsibilities, needs to be conducted (based on the chart supplied within the section).	Depending on the review outcome	Immediate to Short-term (0-3 years) ongoing	To ensure the longevity of the paid-on-call firefighters with the WFS, a full review of pay and incentives should be conducted to ensure that the city is in line with what other similar communities are doing.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
17	Develop a plan to address the noted fire station concerns. • The key concerns are relating to the lack of a diesel exhaust system at each fire station and the need for emergency backup power.	Installation of exhaust system estimate of $20,000 to $40,000 per station. Backup generators can range from $15,000 to $40,000 per unit. Depending on facility needs.	Immediate to Short-term (0-3 years)	*Ensuring protection from diesel exhaust fumes will protect the firefighters from this cancer-causing product, which is a health and safety concern.* And having emergency backup power will ensure that these emergency response facilities can operate during large power outages.
19	That WFS continue to implement the recommendations received from AEMA along with the recommendations provided by EMG, as they relate to the plan	Staff time plus incidental costs that may arise from updating the MEP	Immediate to Short-term (0-3 years) ongoing	WFS received the results of the AEMA 2022/2023 review of the City's MEP. This review recommended some updates to the plan along with training exercises and continued ICS training. All of this is needed to keep the city in compliance with the Provincial emergency management expectations.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
1	That Fire Administration continue its ongoing reviews of bylaws and policies that affect the daily operations of the fire department to ensure training and other resources are adequate to meet the bylaw/policy.	Staff time	Short-term (1-3 years) ongoing	Understanding the expectations of any by-law will assist the Fire Chief in ensuring proper training and resources are adequate to meet the expectations of any fire-related by-law.
2	Establish a SOG Committee representing all divisions of the WFS that develops new SOGs and reviews current ones regularly.	Most costs will be in relation to time spent by the paid-on-call firefighters.	Short-term (1-3 years)	Establishing a SOG committee will aid in maintaining the information in the database to be current while allowing the participation of WFS members to determine the fire department's operations.
3	A review (by FUS) of the Fire Department operations to set and/or improve its FUS grading in the measurement of fire service operations and abilities be undertaken.	Staff time	Short-term (1-3 years)	No recent copy of an FUS review was available. As such, the city should apply for a review by FUS, which will provide even more valuable information as to what fire protection is required by the city.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
6	That the Wetaskiwin Fire Service continue to invest in its fire cause and determination program by developing a continuing education program for additional qualified staff members that includes training, and attendance at subject-focused seminars and membership in the Canadian Association of Fire Investigators (CAFI), and the International Association of Arson investigators (IAAI). such that the number of NFPA 1033 qualified investigators be increased.	Staff Time and cost (+/- $2000 annually) for related training and certification	Short-term (1-3 years)	Having additional fire department members qualified in fire investigations will create a good level of support for the existing staff conducting these activities while creating a higher level of origin a cause awareness throughout the Department. Alternately, the Department could consider formalising an agreement with neighbouring Departments who have the requisite capabilities.
13	That WFS develop a pool of trained Duty Officers to provide after-hours administration and response support.	Training costs (if required) call out fees/wages. The development of an on-call stipend for Duty Officers may cost $5,000.00 - $8,000.00 / year	Short-term (1-3 years)	Presently, the Fire Chief and Deputy Chief are available 24/7 for support as needed. This does not allow for any "scheduled" time off. The Duty Officers concept would allow more flexibility for having on-call senior officer availability as needed. This would also help to provide more of a work-life balance for the Fire Chief and Deputy Chief, by allowing for scheduled time off.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
14	Create position/ job descriptions for each position within the WFS that are not presently covered. • This would include Training Officer, Fire Prevention Officer and Fire and Life Safety Educator. • And included levels of training/certification required. ***Note:*** *Presently, the three full time firefighters are assisting with these functions, but more detailed job descriptions are still required.*	Staff time of Fire Service and Human Resource personnel	Short term (1-3 years)	To aid in staff development and succession planning, additional job descriptions for each position within the WFS should be developed to help identify promotional requirements. These descriptions should include minimum training levels to help those aspiring to new positions to identify requirements and expectations of the positions.
22	Due to the importance of staff understanding their roles and responsibilities in the EOC, it is recommended that a policy be implemented that identifies ICS 200 as the minimum standard for staff required to be in the EOC with ICS 300 as the goal for all department heads (Section Chiefs). Although some ICS training may be taken online, it is further recommended that ICS 200 and 300 are both delivered in person.	Staff time, course supplies, external instructor costs, travel, and accommodation for out of area training.	Short-term (1 - 3 years)	It is imperative that staff holding Section Chief and Command and General Staff positions, have ICS 300 level of training. By reaching this level, it will also provide consistency to the level of expertise among the members of the EOC.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
24	In partnership with the County of Wetaskiwin, complete a review of both the Primary and Secondary EOC's.	Staff time, travel, and incidentals	Short-term (1 - 3 years)	Consistency and operational readiness between the primary and secondary EOC's are essential.
27	Conduct an annual review of all response and automatic aid agreements.	Staff time	Short-term (1-3 years)	Modernization of the current agreement will ensure all key points and expectations are being addressed on behalf of both parties
28	The Wetaskiwin Fire Service revisits existing Mutal Aid Agreement with the City of Leduc.	Staff time	Short-term (1-3 years)	Modernize current agreement or draft a new Mutual Aid Agreement.
29	Update hourly rates for equipment and personnel to reflect current Alberta Road Builder Rates for firefighting equipment and personnel	Staff time	Short-term (1-3 years)	Alberta Road Builder Rates are established by the Province of Alberta for use by municipal fire departments. Using this rate will increase revenues and establish consistency across all agreements.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
30	The Wetaskiwin Fire Service completes a comprehensive financial review of the Fire Service Agreement with Wetaskiwin County and Wetaskiwin Rural Fire Protection Zone 2 Society.	Staff time	Short-term (1-3 years)	Rising equipment, repair and maintenance costs should be reviewed to ensure all rates within the contract remain aligned to current economic times.
31	Update the WFS's ten-year capital budget forecast to include a more contemporary reflection of apparatus and equipment replacement costs.,	Costs would depend on improvements and equipment replacement costs.	Short-term (1-3 years)	Ensuring a standard equipment replacement schedule will allow for a more defined equipment replacement plan.
32	That the WFS 25-year apparatus replacement plan be created, and funding requirements predicted.	Costs dependent on replacement plan approved.	Short-term (1-3 years)	Planning for contributions to reserve for vehicle and equipment replacement will help to secure/replace WFS equipment.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
33	Revision of the fees and charges bylaw be updated at the next scheduled review to reflect each of the revenue opportunities identified in this report.	Staff Time - No Costs	Short-term (1-3 years)	An updated review of revenue opportunities will assist the city in its efforts to support the Fire Department.
7	That the Wetaskiwin Fire Service further develop its capacity and capabilities respecting Fire Code and Enforcement activities by identifying and appointing a part-time Fire Inspector (Fire Prevention Officer) who is fully trained and certified (or obtains certification within a reasonable time frame) to the NFPA 1031 Level II standard. • This can also be accomplished by qualifying one of the full-time firefighters to this level of capability. *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Minimal cost if utilizing present full-time firefighter. or Approximate initial salary cost of $60,000.00 to $90,000.00 per year	Short to Mid-term (1-6 years)	By creating a dedicated position of Fire Inspector, a more consistent level of inspections and code enforcement can be obtained reducing risk exposure for the city due to potential errors or omissions.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
8	That the WFS further develop its capacity and capabilities respecting firefighter training and certification by identifying and appointing a full-time Training Officer who is fully qualified and certified (or obtains certification within a reasonable time frame) to the NFPA 1041 Level II standard. • This can also be accomplished by implementing the position to start as a part-time position that can evolve into full-time. • There is also the possible option of qualifying one of the full-time firefighters to this level of capability *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Minimal cost if utilizing present full-time firefighter. or Approximate initial cost of $60,000.00 to $90,000.00 per year	Short to Mid-term (1-6 years)	By creating the full-time Training Officer position, a more consistent level of training and records management can be obtained.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
18	Develop a vehicle replacement plan to ensure that all fire vehicles are replaced on a scheduled basis.	Cost of a fire truck can range $800,00 for an Engine to $2 million dollars for an aerial.	Short to Mid-term (1-6 years)	Ensuring a healthy and dependable fleet of emergency response vehicles is a must for any emergency service.
21	Develop a four-year plan for the city to exercise the MEP while building staff confidence in responding to and addressing, an emergency or disaster.	Staff time plus incidental supplies and resources necessary to facilitate exercises	Short to Mid Term (1 - 6 years)	The LAEMR identifies that a municipality must exercise their MEP each year with one large-scale exercise to be held once every four years.
20	The City of Wetaskiwin to review the feasibility of acquiring an emergency notification system or expand on a current system used by the Fire Service, to notify employees of an EOC activation.	Costs associated with the expansion of an existing system or purchase of a new system are unknown.	Mid-Term (4 - 6 years)	The current process to activate staff for an ECC is to call to each person directly. As the first minutes of an emergency or disaster are critical, a faster way to notify staff is required.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
23	The City of Wetaskiwin engage all Emergency and Disaster Aid Agreement partners to conduct a review of each agreement.	Staff time, travel, and incidental supplies	Mid Term (4 - 6 years)	This review will allow partners to review each agreement for consistency and accuracy, discuss updating each agreement to meet current legislation and terminology as well as, to discuss the possibility of shared training and exercise opportunities
26	Hire a .5 FTE Emergency Management Coordinator to oversee the MEP, and the coordination of exercises and training.	Estimated at 45K per year + employer contributions (22%+/-)	Mid Term (4 - 6 years)	This new position would be focused on ensuring the City of Wetaskiwin's Emergency Management Program is in-line with the requirements of the province, and that it meets the needs of the community.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
25	Engage with area partners to discuss the concept of a Regional Emergency Management Commission/Partnership, for the City of Wetaskiwin and surrounding communities.	Staff time, travel, and incidentals.	Long Term (7 - 10 years)	Other regions within the province have successfully entered emergency management partnerships, one example is the Grande Prairie Regional Emergency Partnership (GPREP). These types of partnership allow for the cost sharing of emergency management programs and for the pooling of resources to respond to and mitigate an event. Note: Should there be interest among partners, a consultant may be jointly hired to specifically look at the feasibility of a partnership. Some grant funding may be available.
9	All WFS Instructors conducting live fire training be competent in NFPA 1403.	$+/-1,500 per student plus travel, accommodations, and staff time	For future consideration as required.	Instructor certification to the NFPA 1403 Live Fire Instructor Standard will promote safe training evolutions while enhancing learning opportunities for students. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
10	That WFS adopt NFPA 1402 Standard for Fire Service Training Facilities to ensure its training facility is meeting an industry standard.	Staff time to research the standard	For future consideration as required	Implementing the NFPA 1402 Standard will assist in ensuring the design, construction, repair, and maintenance of the training facility aligns with industry best practice, reducing the potential of liability. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.
11	Adopt NFPA 1403 Standard for Live Fire Training to ensure safety of all personnel taking the training.	Staff time to research the standard and develop SOP's/Policies	For future consideration as required	Implementing the NFPA 1403 Standard will assist in ensuring industry recommended processes are in place and followed to ensure the safety of all users. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
12	Develop a budget for the future upgrading and/or replacement of training props for the Fire Service Training Facility.	Staff time to determine costs and create formula/ replacement schedule	For future consideration as required	Implementing a dedicated training facility replacement plan for all training props will aid in ensuring funding is available to replace damaged or worn-out equipment in a timely manner. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.

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ACRONYMS

AEMA	Alberta Emergency Management Agency
AFCA	Alberta Fire Chiefs Association
AFRRS	Alberta First Responder Radio System
CAFC	Canadian Association of Fire Chiefs
CAFI	Canadian Association of Fire Investigators
CAO	Chief Administrative Officer
CRA	Community Risk Assessment
CRTC	Canadian Radio-television and Telecommunications Commission
CTO	Chief Training Officer
DEM	Director of Emergency Management
DPG	Dwelling Protection Grade
E&R	Establishing and Regulating (By-law)
ECC	Emergency Coordination Centre
EMA	Emergency Management Act
EMG	Emergency Management Group
EOC	Emergency Operations Centre
FDMP	Fire Department Master Plan

ACRONYMS

FPO	Fire Prevention Officer
FUS	Fire Underwriters Survey
HAZMAT	Hazardous materials
HFSC	Home Fire Sprinkler Coalition
HR	Human Resources
HRFP	Health-related fitness program
IAAIS	International Association of Arson Investigators
ICS	Incident Command System
IFSAC	International Fire Service Accreditation Congress
LAEMR	Local Authority Emergency Management Regulation
MGA	Municipal Government Act
MEP	Municipal Emergency Plan
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NIST	National Institute of Standards and Technology
OFM	Office of the Fire Marshal
OHS	Occupational Health and Safety

ACRONYMS

OHSA	Occupational Health and Safety Act
PFPC	Public Fire Protection Classification
POC	Paid-on-Call
PPE	Personal protective equipment
PTSD	Post-Traumatic Stress Disorder
QMP	Quality Management Plan
RCMP	Royal Canadian Mounted Police
RFP	Request for Proposal
RMS	Records management system
RPAS	Remotely Piloted Aircraft Systems
SCA	Safety Codes Act
SCBA	Self-contained breathing apparatus
SCO	Safety Code Officers
SOG	Standard Operating Guidelines
SOLE	Station of Local Emergency
SOP	Standard Operating Procedures
SWOT	Strengths, Weaknesses, Opportunities, and Threats

ACRONYMS

TSSA	Technical Standards and Safety Authority
WFS	Wetaskiwin Fire Service

Introduction

INTRODUCTION

Project Methodology

EMG has based its review process on the City of Wetaskiwin's initial Request for Proposal (RFP) and the subsequent response document submitted by EMG. The specific scope of work noted (in the RFP) was reviewed and included in each section of this document. The FDMP review was completed utilizing best practices, current industry standards, and applicable legislation as the foundation for all work undertaken.

EMG also utilized quantitative and qualitative research methodologies to develop a strong understanding of the community's current and future needs and circumstances.

Overall, the methodology involves a considerable amount of research, documentation review, data analysis, and stakeholder consultation. Then comes the submission of draft reports and related recommendations. The final product is a living document that provides a high-level strategic direction for City Council and the WFS.

To accomplish the scope of requirements, EMG has:

- Reviewed the Establishing and Regulating (E&R) By-law.
- Reviewed applicable municipal, provincial, and federal legislations.
- Reviewed planning department documents regarding community and areas of growth projections.
- Reviewed any previous risk assessment, council's strategic priorities, and other pertinent documents.
- Conducted a general risk assessment based on the information supplied and garnered during interviews and site visit.
- Reviewed current service agreements with neighbouring municipalities and any other current documents.
- Gathered information on operational requirements, including past and current response statistics (call volumes/response times) to analyze trends, staff availability/ needs and response capabilities, etc.
- Reviewed service administration including staffing, organizational structure, policies and procedures, administrative support, record keeping and information management/technology, purchasing and inventory control, public and media relations, and customer service.
- Toured the City of Wetaskiwin fire stations conducting a location/response analysis.
- Examined fire vehicles, apparatus, and equipment including the maintenance program.

- Reviewed fire service policies, procedures, emergency response operational guidelines, training programs, and records.
- Collected information on the fire prevention program including education programs, inspection reports/data, enforcement data, and investigations.
- Identified and compared industry best practices relating to fire service performance measurement.
- Reviewed current job descriptions, staff recruitment and retention practices, promotional policy, succession planning and demographics.
- Reviewed the operational and capital budgets of the fire service.

Based on the above criteria, through meetings with members of Council, the City's Senior Leadership Team, firefighters, and community stakeholders, the consulting team completed a thorough review of elements that are working well and areas requiring improvement within the WFS. Data provided by WFS was reviewed in relation to all the previously noted items contained in the Wetaskiwin RFP. This review culminated in a total of 35 recommendations.

Performance Measures and Standards

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

- The requirements of the *Safety Codes Act (SCA)* and related regulations as administered by the Safety Codes Council.
- The *Occupational Health and Safety Act (OHSA)*, and related regulations, with reference to the National Institute for Occupational Safety and Health (NIOSH)
- The National Fire Protection Association (NFPA) standards, and
- The Fire Underwriters Survey (FUS) technical documents.

Project Consultants

Although several staff at EMG were involved in the collaboration and completion of this FSMP, the overall review was conducted by (in order of involvement):

- Lyle Quan, Fire Service Consultant/VP of Operations - Project Lead
- Everett Cooke, Fire Service Consultant
- Monty Armstrong, Fire Service Consultant
- Darryl Culley, President

Together, the team has amassed a considerable amount of experience in all areas of Fire Rescue program development, review, and training. The EMG team has worked on projects that range from fire service reviews to the creation of strategic and master fire plans and the development of emergency response programs for clients.

SECTION 1

Community and Fire Department Overview

SECTION 1: COMMUNITY & FIRE DEPARTMENT OVERVIEW

1.1 Community Overview

The City of Wetaskiwin is located approximately 35 minutes from the Edmonton International Airport (YEG), just south of Edmonton, Alberta's capital city. The city's strategic location allows for easy access to major transportation routes, making it a convenient hub for both local and regional travel.

History and Heritage: Wetaskiwin boasts a storied history that is dated back to the late 1800s. Originally a hub for fur trading and agriculture, the city's heritage is preserved through its historic downtown area and various museums.

Economy: The local economy of Wetaskiwin is diverse, encompassing agriculture, retail, healthcare, manufacturing, logistics and more. The city's proximity to major transportation corridors has attracted various businesses, contributing to its growth and stability. Residents enjoy a balance of job opportunities and services without sacrificing the small-town atmosphere[1].

[1] City of Wetaskiwin, "Wetaskiwin 2023 Community Profile," Retrieved September 12, 2023, https://www.wetaskiwin.ca/992/Community-Profile

FIGURE #1: WETASKIWIN (IN RELATION TO BORDERING COMMUNITIES)

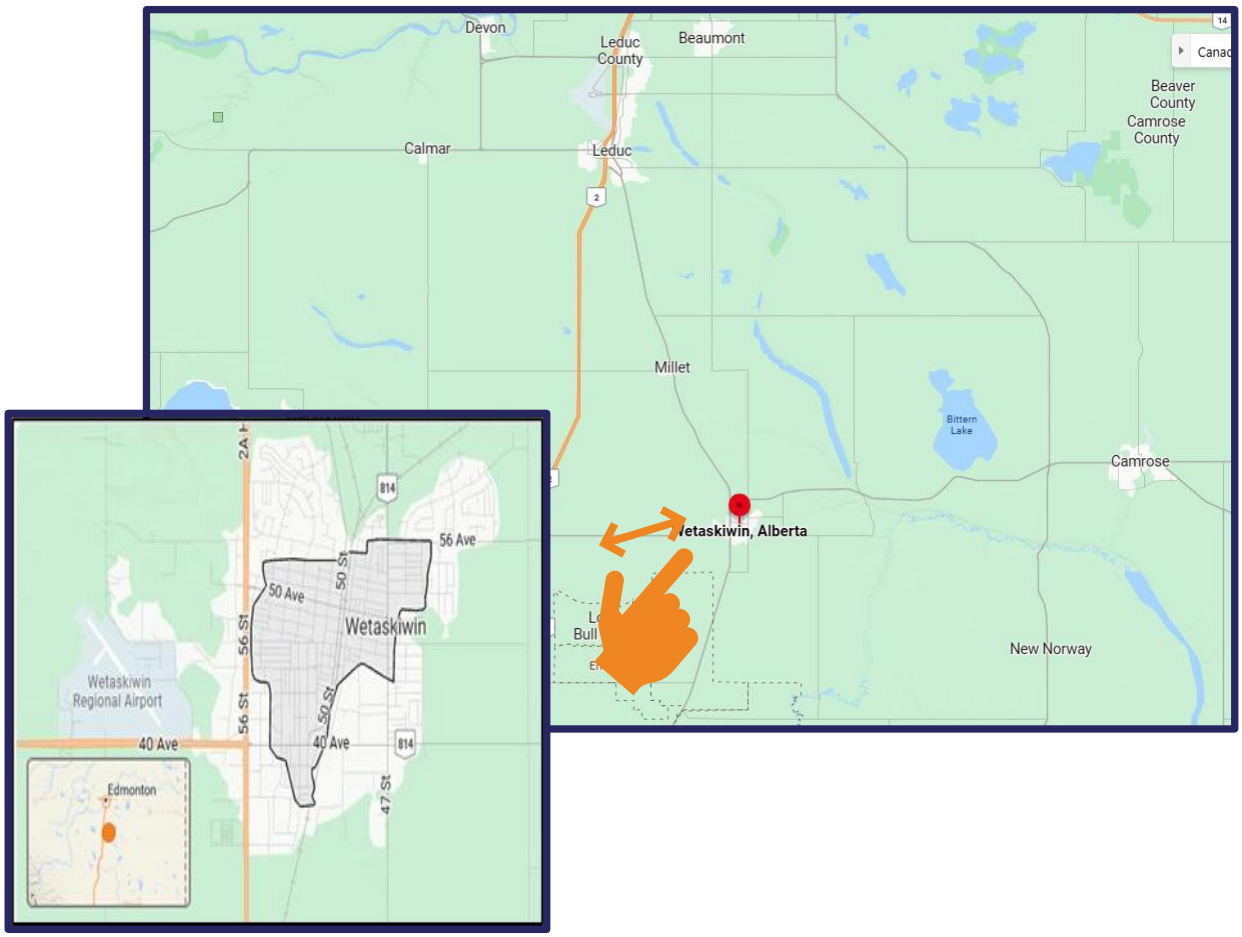


TABLE #1: POPULATION OF WETASKIWIN[2]

Statistics Canada – Wetaskiwin Population and dwellings	
Population (2021)	12,594
Population (2016)	12,655
Population percentage change (2016 to 2021)	- 0.5
Total private dwellings	5,643
Private dwellings occupied by usual residents	5,186
Population density per square kilometre	671.6
Land area in square kilometres	18.75

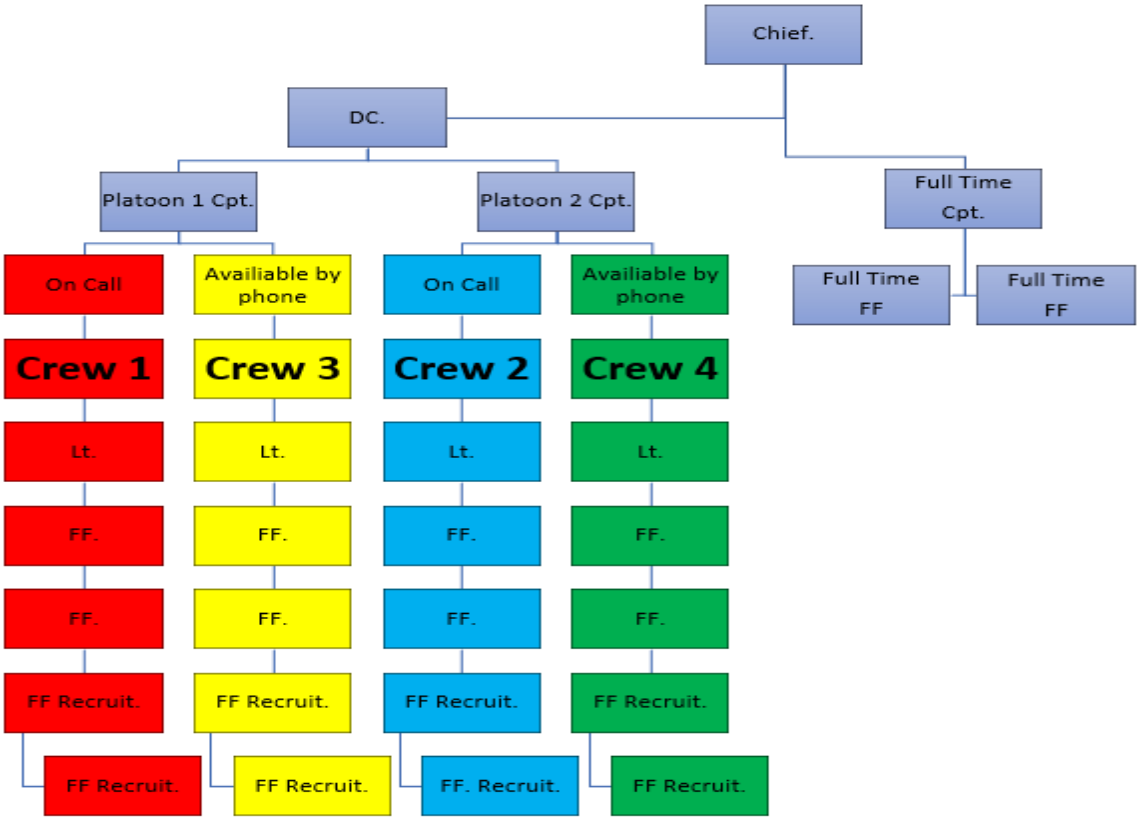
Based on information obtained from the City's Planning documents, it would appear that the long-range forecast for population would see the city grow within the region, south of the Metropolitan centre of Edmonton and Capital Region. Wetaskiwin Council has produced a 50-year visioning document, as well as a 10-year strategic plan to guide policy and decision making within the City.

1.2 Fire Service Overview

WFS provides emergency response and fire prevention programs from two stations. There is a combined staff that consists of a full-time Fire Chief, a full-time Deputy Fire Chief, three full-time firefighters ,and 28 Paid-on-Call (POC) firefighters.

[2] Statistics Canada, Profile table, Census Profile, 2021 Census of Population - Wetaskiwin [Census agglomeration], Alberta," Retrieved September 12, 2023, https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?DGUIDlist=2021S0504865&GENDERlist=1&HEADERlist=0&Lang=E&STATISTIClist=1&SearchText=Wetaskiwin

FIGURE #2: WETASKIWIN ORGANIZATIONAL STRUCTURE



1.3 By-Laws and Operating Guidelines

Any by-laws that were supplied to EMG have been reviewed and discussed within each related section (such as the fees and services by-law, fire by-law, and emergency management by-law) of this master plan. At this time, EMG is suggesting that all by-laws and departmental operating guidelines be reviewed and updated as needed on an annual or bi-annual basis to ensure that each by-law and departmental guideline is current and meeting the needs of the community and the fire department.

The By-Law to Provide Fire Service to the City of Wetaskiwin was recently updated in 2023. This document outlines the overall goals and objectives relating to the provision of a fire service and the development of regulations for the control of open fires. This is a well written document that provides direction, guidance, and support to the Wetaskiwin Fire Service and its Fire Chief in the performance of the department's duties. EMG has no recommendations to any changes for this By-law.

More information relating to these by-laws can be found in the respective section.

1.3.1 Policies and Standard Operating Guidelines

Fire department policies and guidelines have immense value for a department. They are the critical foundation of a fire department's success. The backbone of any fire service is its policies, standard operating procedures (SOPs), and SOGs, which govern and provide direction on its operations.

- Policy - a high-level statement that expects consistent compliance. It permits very little to no flexibility.
- Guideline - a standard with an acceptable level of quality or attainment. It provides direction on how to act in each situation with non-mandatory controls.
- Procedure - a requirement with an acceptable level of quality or accomplishment in a series of detailed steps to accomplish an end. There are step-by-step instructions for execution and completion.

The WFS has many SOGs in place and to ensure all the SOGs are current, they need to be reviewed and revised on an ongoing basis, as circumstances change. To the WFS credit, they completed a full review of the SOGs in 2023.

Reviewing the SOGs can be an incredibly detailed and very involved process. Writing new SOGs and maintaining existing ones is a daunting task to leave solely to the Fire Chief and Deputy Chief to look after. With the hiring of a full-time firefighter contingent for the WFS, the Fire Chief is now able to utilize these personnel in the ongoing review of departmental guidelines (and even equipment maintenance) which reduces the workload and expectations on the Fire Chief, Deputy Chief, and POC firefighters.

Establishing a committee that meets regularly to develop new SOGs and review older ones would engage all members of the department, which promotes and supports a team environment. EMG is aware that both the Fire Chief and Deputy Chief support this concept.

The development of a structured SOG Committee would be a great benefit to the WFS in many ways:

- Ongoing updated and current SOGs
- Staff would be more involved in the fire department operations, and
- Provides a safer environment for members to work.

For a fire department to operate safely and efficiently, all members must adhere to all policies, SOGs, and SOPs, and those that fail to do so be held accountable.

As noted, EMG observed that the WFS has a relatively complete set of contemporary SOGs and as "living documents" these are being regularly refined, updated, and added to. In our experience, this is not the norm, and our compliments are extended in this regard.

Section 1: Recommendations

Rec #	Recommendation	Estimate Cost	Suggested Implementation Timelines	Rationale
1	Fire Administration review by-laws that affect the daily operations of the fire department.	Staff time	Short-term (1-3 years)	Understanding the expectations of any by-law will assist the Fire Chief in ensuring adequate training and resources.
2	Establish an SOG Committee representing all divisions of the WFS that develops new SOGs and reviews current ones regularly.	Most costs will be in relation to time spent by the paid-on-call firefighters.	Short-term (1-3 years)	A committee will aid in maintaining currency of information in the database while allowing the participation of WFS members to determine the fire department's operations.

SECTION 2

Risk Assessment

SECTION 2: RISK ASSESSMENT

2.1 Strengths, Weaknesses, Opportunities, and Threats (SWOT)

The strengths and weaknesses portion of a SWOT analysis are based on an internal review that identifies what is working well, along with recognizing areas for improvement. The opportunities and threats portion of the SWOT are related to external influences and how these influences affect the operations and response capabilities of an emergency service.

2.1.1 Strengths

- Wetaskiwin benefits from having two fire stations that are arranged into two response zones, which has worked well for the Fire Department in relation to responding to calls for service within the community.
    - Along with the full-time firefighters, the Department has a core group of dedicated POC firefighters.
- The WFS has strong relationships with its partner emergency services (police and EMS), along with automatic aid agreements in place with other fire services to assist with general response needs.

2.1.2 Weaknesses

- WFS, as with many volunteer and POC fire services, depends on its team of dedicated firefighters (for response to calls). At times it can be challenging when it comes to having enough POC firefighters for these responses.
    - Due to other commitments, such as their full-time jobs and family obligations, there is no guarantee the firefighters will be available to respond as needed, which in turn can cause low numbers of on-scene staffing levels.

***Note**: To augment this challenge, the* WFS *has recently incorporated a full-time daytime response component to better serve the community.*

2.1.3 Opportunities

- WFS should continue building upon its partnerships with bordering departments for such things as joint training, cross-border responses, mutual aid, and fire service agreements that benefit both communities.
    - Continuing to build on these partnerships will improve available options in relation to meeting future training and certification requirements.
- WFS has a training ground that is well set up, with even more plans on expanding.

- Greater promotion of this facility to encourage joint training initiatives will improve cross-border response coordination.
- Further promotion of use of the facility for rental/training opportunities to fire departments that do not have access to such a facility will help to cover maintenance costs.

2.1.4 Threats/ Challenges

- There is a large population of unhoused people, relative to the size of the community in Wetaskiwin. As many of these people are sheltered in tents and within environments that are not regulated by any fire safety regulations, there is an increased possibility of fires. The safety of these citizens is of concern for the WFS.
- The threat of climate change and its impact on weather patterns is an increasing challenge for communities to mitigate. Inclement weather incidents, such as freezing rain/ice storms, are becoming more commonplace and need to be part of the emergency response program for each community.
    - These changes in climate conditions, along with the resulting frequency and severity of incidents, has also predicated the need for a larger response component to these emergencies.

All the noted weaknesses and challenges will be addressed within this document (within the related section(s).

2.2 Stakeholder Surveys

To get a complete understanding of how well WFS is meeting the needs of the community and its POC firefighters, both community and staff input were requested in the form of an online survey. This input was helpful in developing recommendations to assist Wetaskiwin Council with future strategic decision making as it relates to the fire service.

2.2.1 External Surveys

There was a total of 58 external surveys completed. Based on the information received, the following areas were identified as the four most important services:

i. Response to firefighting incidents
ii. Response for rescue and motor vehicle incidents
iii. Response to medical assitance
iv. Response to hazardous materials (HAZMAT) incidents

Other information received, include:

- The Fire Department is viewed as professional, and a good community partner.
- Some external stakeholders suggested they would like to see an increase in:
    - More fire safety education and safety programs
    - School visits
    - Fire extinguisher training
- The following were identified as the top issues/ challenges:
    - Cost of supplying the services to the community
    - Possible hiring of paid-on-call and keeping their skills current
    - Continuing to meet the needs of the community.
- When asked about what was most important, the external respondents overwhelmingly noted the following three items:
    i. The speed of response,
    ii. Being well trained, and
    iii. Working with other agencies to provide community safety services.

Wetaskiwin Fire Services - External SurveyMonkey

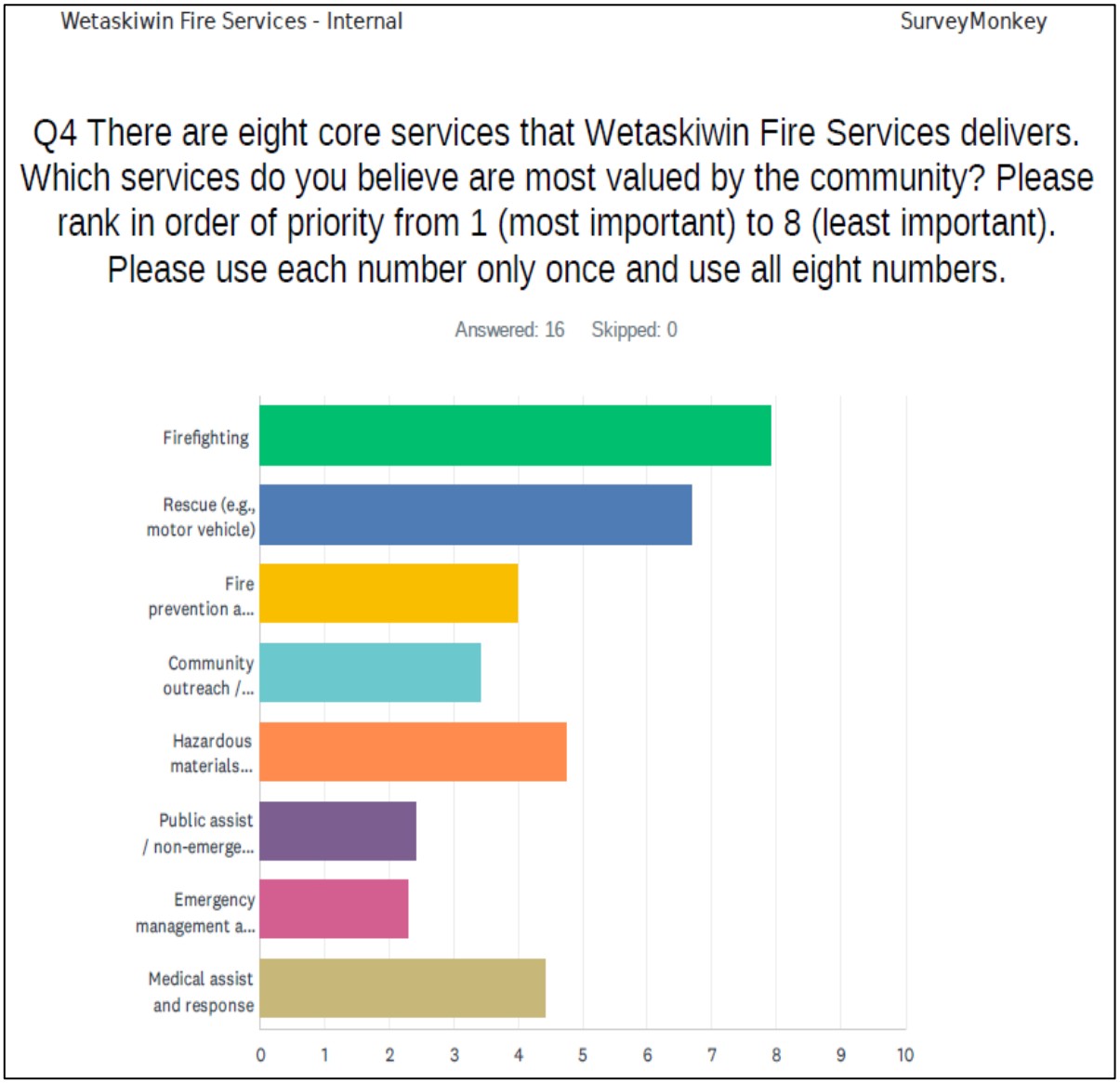
	VERY IMPORTANT	IMPORTANT	NEUTRAL	NOT IMPORTANT	(NO LABEL)	TOTAL	WEIGHTED AVERAGE
How quickly the Wetaskiwin Fire Services gets to me if I have an emergency.	87.72% 50	10.53% 6	1.75% 1	0.00% 0	0.00% 0	57	1.14
Whether the Fire Department will visit my home to give me safety advice and/or fire smoke alarms.	8.62% 5	22.41% 13	39.66% 23	29.31% 17	0.00% 0	58	2.90
How much Wetaskiwin Fire Services costs me as a taxpayer.	31.03% 18	37.93% 22	20.69% 12	10.34% 6	0.00% 0	58	2.10
How well Wetaskiwin Fire Services works with other agencies to provide wider community safety services.	55.17% 32	27.59% 16	13.79% 8	3.45% 2	0.00% 0	58	1.66
How often Wetaskiwin Fire Services consults me about their services.	22.41% 13	20.69% 12	39.66% 23	17.24% 10	0.00% 0	58	2.52
How often Wetaskiwin Fire Services provides community training opportunities (e.g., fire extinguisher training; school safety programs; older and wiser program; smoke alarms; fire escape planning).	37.93% 22	34.48% 20	18.97% 11	8.62% 5	0.00% 0	58	1.98
How visible Wetaskiwin Fire Services is at local community events.	34.48% 20	39.66% 23	15.52% 9	10.34% 6	0.00% 0	58	2.02
Contacting assistance services after an emergency, as required.	24.14% 14	36.21% 21	34.48% 20	5.17% 3	0.00% 0	58	2.21
Timeliness to any request for services or assistance from Wetaskiwin Fire Services.	48.28% 28	41.38% 24	10.34% 6	0.00% 0	0.00% 0	58	1.62
Purchasing and maintaining new and applicable equipment.	37.93% 22	53.45% 31	3.45% 2	3.45% 2	1.72% 1	58	1.78
Continued and relevant training.	58.62% 34	39.66% 23	1.72% 1	0.00% 0	0.00% 0	58	1.43

2.2.2 Internal Surveys (including Council feedback)

A total of 16 internal surveys were completed (by the firefighters). Much of the information received from the internal surveys identified the following:

- When asked what makes the firefighters most proud of their department, the key responses were:
    - Supportive of the community
    - Community driven, making a positive difference.
    - Good leadership

- Ranking of the top services based on internal response (in order):
    - Firefighting
    - Rescue
    - Hazardous materials response
    - Medical assistance
    - Fire prevention and public education



- As to what improvements or additions that could be incorporated:
    - Better dispatching services
    - More full-time firefighters
    - More training
- Top three issues facing the fire department today:
    - Not enough paid-on-call firefighters
    - Increasing call volumes
    - Lack of internal communication overall

Council feedback indicated that:

- The firefighters are committed to the safety of the community.
- The community is getting good value for the tax dollars spent on the fire service.
- Recruitment and training seem to be the top challenges for the fire department at this time.

Due to the projected low growth rate of the city, Council does not foresee the overall composition of the department changing for some time.

All the input from external and internal stakeholders are considered during the review of the different sections within this document. For example, more information and recommendations are made to improve fire prevention and public education. A greater focus on training and succession planning is also noted in this the training section.

2.3 Community Risk Assessment Profile

Risk assessment is the process used to identify the level of fire protection required within the boundary of the City of Wetaskiwin. It measures the probability and consequence of an adverse effect on health, property, organization, environment, or community due to an event, activity, or operation. Council has the authority to establish fire protection within their municipality. The Fire Chief is responsible for informing the Council of all risks existing within the community. Based on this information, Council can make an informed decision on the level of service to be achieved.

A comprehensive CRA is one of the most useful tools that a community can have that will inform and assist in making policy decisions, directing the delivery of fire and emergency services. In the Province of Alberta, the *SCA* requires each municipality to become accredited by the Safety Codes Council for the delivery of services in nine disciplines, including those that fall under the umbrella of fire services. This will form part of a CRA as described in the NFPA 1300 *Standard on Community Risk Assessment and Community Risk Reductions Plan Development*.

Note: The city has opted to complete the FDMP first. As such, the following information is a high-level overview of risks within the community. Should WFS consider completing a detailed CRA, it will supply the city with a more comprehensive document.

City of Wetaskiwin Fire Loss Statistics

During the time of EMG's review, WFS indicated that they are working on maintaining an accurate record of call types and other services provided. Due to change in personnel, dispatch services, and records management system (RMS) software, a detailed analysis is difficult to provide. WFS is indicating property loss for the period January 1, 2018, to December 31, 2022, at over $13 million which indicates per capita loss of $1,038.00. The population of the City of Wetaskiwin has been consistent in both the 2016 and 2021 census at 12,594 people. [3]

City of Wetaskiwin Reported Fire Cause

Assessing the possible causes of fire loss and other emergency incident responses is essential when identifying potential trends or areas to be considered for introducing additional public education on fire prevention initiatives as part of the community fire protection plan.

Traditionally, leading causes of fire are:

- Misuse of ignition source/materials first ignited
- Unintentional/undetermined
- Mechanical/electrical failure
- Design/construction/maintenance deficiency
- Incendiary

2.3.1 Community Risk Assessment

The following list outlines risks to life safety and property. Using this information as the starting foundation, the Fire Chief can put forward strategies to mitigate the risks that WFS faces, including fire prevention, inspection, and education strategies. This information will also assist the elected council to review and confirm the level of service WFS is providing.

[33] Statistics Canada, "Profile table, Census Profile, 2021 Census of Population - Wetaskiwin, City (CY) [Census subdivision], Alberta," retrieved October 28, 2023, https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?Lang=E&SearchText=wetaskiwin&DGUIDlist=2021A00054811002&GENDERlist=1,2,3&STATISTIClist=1,4&HEADERlist=0

Radio Systems – In 2016, the Alberta First Responder Radio System (AFRRCS)[4] went live allowing all federal, provincial, and First Nations to communicate on one radio platform and share talk groups among agencies. AFRRCS is a province-wide digital radio network build to the P25 Standard. This move has enhanced interoperability between communities and the various agencies that deliver services in Wetaskiwin. For example, the Police of Jurisdiction, Royal Canadian Mounted Police (RCMP), Alberta Sherrif's, Alberta Health Services, and WFS can all communicate on the same radio talk group. It is recommended that WFS continue to allocate resources to the ongoing use and maintenance of radio equipment so that access to AFRRCS and interoperability can be maintained, or further enhanced. As all technology evolves, there will be the move to Public Safety Broadband in the future. WFS should become active in these discussions through the Alberta Fire Chiefs Association (AFCA) to be adequately prepared for the future.

Fire Stations – An assessment of the current and future needs of the fire stations is being conducted within this FDMP. The current stations were built in 2007, which makes them relatively new. However, both stations lack post-disaster engineering components, emergency backup power, exhaust extraction systems, negative pressure bunker gear storage rooms, and proper fitness room components.

Hazardous Material Incidents – Currently, WFS responds to HAZMAT incidents in accordance with NFPA 472, *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents,* at the Awareness Level. This requires the firefighters to meet mission-specific competencies to implement the Incident Command System (ICS) and begin resourcing to manage HAZMAT incidents. This restricts response levels to HAZMAT incidents as, in some situations, the firefighters are not trained or resourced to mitigate these incidents. This delays the incident's control and/or mitigation, as outside resources are needed to attend, manage, and demobilize these incidents.

The WFS should develop a mitigation strategy for handling HAZMAT incidents. This will include ensuring that services in the Quality Management Plan (QMP) are accurate, and a detailed resource list is compiled for timely access and deployment. This strategy may include entering response agreements with either outside fire service or third parties.

Technical Rescues –Trench, Confined Space, High and Low Angle, Elevator, and Motor Vehicle Accidents are classified as technical rescues. Currently WFR provides services at the Awareness Level. To provide a higher level of response, WFS requires that SOGs, SOPs, procedures, equipment, and training specific to each discipline are in place. WFR currently responds at the Awareness Level for each call type which restricts their level of participation in completing the rescue. A response

[4] Government of Alberta, "Alberta First Responders Radio Communications System," retrieved October 28, 2023, https://www.alberta.ca/alberta-first-responder-radio-communications-system

mitigation strategy that includes response agreements needs to be developed and receive Council's approval.

Elevator rescues should not be initiated until SOGs, equipment acquisition, and training are in place. The firefighters need to be trained to the standards as established by the manufacturers and the Safety Codes Council.

Weather Events – This area of Alberta is known to receive severe weather events. These range from snowstorms, severe hail, and wind events including tornadoes.

The severity of some weather events may require activation of the City's Emergency Operations Centre (EOC). Preparations in handling such events should include annual tabletop or real-time training exercises that include participation of members of the City's Control Group and allied agencies.

Domestic Terrorism - The threat of domestic terrorism exists in Canada, with numerous incidents producing havoc and terror among the populace. Situations have occurred in serval Canadian cities with catastrophic consequences. Mass Casualty as a result of a targeted incident may occur in factories, schools, supermarkets, and seasonal facilities.

NFPA 3000 – *Standard for an Active Shooter/Hostile Event Response (ASHER) Program*, defines ASHER as "*an incident where one or more individuals are or have been actively engaged in harming, killing, or attempting to kill people in a populated area by means such as firearms, explosives, toxic substances, vehicles, edged weapons, fire, or a combined thereof."*

It further describes the ASHER Program as "*a community-based approach to preparedness, mitigation, response, and recovery from an ASHER incident, including public or private partnerships, emergency management, the medical community, emergency responders, and the public."*

Too often, communities wait until an event has occurred with catastrophic consequences and loss of life before identifying the need for public education and preparedness to handle such incidents. Terrorism attacks quite often focus on those of religious faith.

Industries – Wetaskiwin is centrally located between the urban centres of Edmonton and Red Deer , with a trading area population of 50,000. This centralized location has highway road access, rail, and air access supporting agriculture, light manufacturing, retail, and warehousing for economic activity in the region. These risks bring a transient population to the area, as well as key risks for the specific industries.

Demographics – Demographic statistics indicate that the population decreased 3.93% between 2018 and 2022. [5] The Alberta Government is predicting a provincial population increase of 1.4% annually through to 2046[6]. The assumption can be made that slow steady growth will remain in Wetaskiwin for the next 10 years, which allows for solidifying and improving existing programs.

To meet the community's needs, the WFS needs to review current capacity and resources to ensure that all services can be delivered with the current staffing model. Different strategies may be needed to ensure sustainability of WFS.

2.4 Fire Underwriters Survey

As part of a CRA, a review by the FUS group will provide another component to understanding possible service gaps within the community. The FUS is a national organization that provides data on public fire protection for fire insurance statistical work and underwriting purposes of subscribing insurance companies. Subscribers of FUS represent approximately 90% of the private sector property and casualty insurers in Canada.

FUS Certified Fire Protection Specialists conduct detailed field surveys of the fire risks and fire defences maintained in built up communities including incorporated and unincorporated communities of all types across Canada. To complete this task, the specialists at FUS perform a detailed analysis of the overall fire protection by assessing four key areas: fire department, water supplies, fire prevention, and emergency communications.

The results of these surveys are used to establish a Public Fire Protection Classification (PFPC) for each community. While the FUS is not involved in setting rates, the information provided through the Fire Insurance Grading Index is a key factor used in the development of commercial lines property insurance rates. The PFPC is also used by underwriters to determine the amount of risk they are willing to assume in each community or section of a community.

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

[5] Government of Alberta, "Wetaskiwin – Population," retrieved October 29, 2023, https://regionaldashboard.alberta.ca/region/wetaskiwin/population/#/?from=2018&to=2022
[6] Government of Alberta, "Population Projections - Alberta and Census Divisions, 2021–2046," retrieved October 29, 2023, https://open.alberta.ca/dataset/90a09f08-c52c-43bd-b48a-fda5187273b9/resource/9b48e997-92b0-4b74-82d2-017443049790/download/2021-2046-alberta-population-projections.pdf

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

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

The FUS has also introduced the FUS Municipal Fire Portal that would provide WFS with the ability to access and update data relevant to the fire service and forward updates in a timely fashion. By accessing this system regularly, the WFS can provide frequent updates from which FUS specialists will analyze and publish grade updates as deemed necessary. It is recommended that once a FUS assessment is complete, the Fire Chief regularly access and provide input to the FUS Municipal Fire Portal.

It was noted that in 2020, the review for a FUS update was started and not completed. As such, it is recommended that this process continue. WFS needs to engage FUS and ensure that all information on Wetaskiwin is up to date so that the DPG and PFPC ratings are accurate. EMG believes that the WFS has the experience and capability to pursue better results as per the industry standards.

2.5 Next Steps

As the community grows in population and ages, the frequency and types of calls will also change. Based on these changes, there may be a future need for additional full-time staff for fire operations. Personnel can be crossed trained as Fire Prevention Officers (FPO), to offer a more complete service to the community, while simultaneously being available for fire and medical responses.

Section 2: Recommendations:

Rec #	Recommendation	Estimated Costs	Suggested Implementation Timelines	Rationale
3	Undertake a review (by FUS) of the Fire Department operations to set and/or improve its FUS grading in the measurement of fire service operations and abilities.	Staff time	Short-term (1-3 years)	No recent copy of an FUS review was available. As such, the city should apply for a review by FUS, which will provide even more valuable information as to what fire protection is required by the city.

SECTION 3

Fire Department Divisions

SECTION 3: FIRE DEPARTMENT DIVISIONS

Within the scope of work required in the original RFP document, staffing and divisional needs was identified as a priority in which EMG was to review the capabilities of existing staffing and identify future needs for each of the divisions including Administration, Fire Prevention, Training, Suppression, and Communications.

3.1 Community Safety

In Alberta, the *Fire Services Act* has been held in abeyance and the *SCA* is now in force and administered by the Safety Codes Council. Eleven disciplines are managed by the council, with Fire and Building being the most relevant to WFS. It is important that WFS continue to develop staff to achieve qualifications as Inspections and Investigations and be delegated authority by the city and County of Wetaskiwin to deliver these services. These staff members will have education and powers to enforce the National Fire Code, as adopted in Alberta, and assist in Public Education. Each municipality that delivers these services must be Accredited by the Safety Codes Council. This requires a QMP to be submitted every five years. It is recommended that WFS ensure their QMP is kept current.

Along with being accredited by the Safety Codes Council, the following industry best practices help to inform a fire department of industry expectations. Neither the NFPA and/or the FUS are legislated requirements, and do not have to be followed, but utilizing them to improve a community's fire service is encouraged by EMG.

3.2 National Fire Protection Association 1201

The NFPA 1201 – *Standard for Providing Fire Rescue to the Public* makes note of the services that should be offered and how they are to be delivered based on the composition of an emergency service.

Section 4.3.5 notes:

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

6. Protect cultural resources.

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

To provide an emergency service clearer focus on what the ultimate goals for emergency response criteria are, the NFPA suggests that response times should be used as a primary performance measure in emergency services. NFPA 1720 refers to goals and expectations for volunteer/POC emergency services that has been incorporated into the evaluation of the emergency services' response and staffing needs. More discussion in relation to the 1720 standard will be presented within this section and Section 4.

3.3 Administration Division

The Administration Division in Wetaskiwin includes a full-time Fire Chief and Deputy Fire Chief who share the administrative workload. Prior to the hiring of the three full-time firefighters, there was an administrative assistant, but that position was lost in favour of having a full-time response component for the city.

This full-time response component was a very positive move by the City Council in supporting an improved level of service to the community.

The Fire Chief oversees the operations of the full-time firefighters, and the Deputy Chief oversees the operations of the POC firefighters. There is no actual Training or Fire Prevention Division noted in the organizational structure of the department. Both duties are shared between the Fire Chief and Deputy Chief.

Overall, the administrative division is quite lean in its structure; both senior staff are doing the best that they can do with the assistance of the full-time firefighters helping with some of the office duties.

While the administrative division would benefit from the inclusion of administrative assistance, even in a part-time capacity, it is understood that the inclusion of the full-time response component provided a greater overall benefit to the department and the community. However, it is recommended that a full accounting of time spent on administrative duties be recorded to identify when the addition of a part of full-time person may be needed (for administrative duties).

It is important to ensure that administrative duties and related records management needs should not be overlooked.

Note: Even with the assistance of the three full time firefighters; It must be kept in mind that there may be a future need for a more dedicated investment in this area (of support). This is because the full-time firefighters are assisting with these duties as time allows.

3.4 Fire Prevention and Public Education

In Alberta, a municipality declares its level of service through its QMP; this must be updated and approved by the Safety Codes Council every five years. Due to scarce resources and the need for flexibility, many fire departments offer inspection and public education on a request or complaint basis, and WFS is no different. This allows the department to deliver services and manage their internal resources.

WFS's QMP has not been updated or reviewed since 2014 and priority should be made to do so. Consideration to the fire prevention services offered in the QMP should be considered. Commitment to providing the services under the QMP may assist in recruitment and retention of staff that can work in fire operational capacities. Recruitment and retention of volunteer/POC firefighters is always challenging; providing proactive fire inspection and education services will allow WFS to have trained staff on hand that can be crossed-trained as operational firefighters. This will assist in having adequate resources for fire and emergency calls, working to prevent the calls from occurring and reducing the severity of the incident.

3.4.1 Public Education Activity Opportunities

The foundation of a risk-based approach to fire prevention is the education of residents and business owners in the community. More education permits the prevention and mitigation of the severity of an incident, and less demand on the resources of WFS. Relying on fire suppression or emergency response should not be the only strategy in meeting the community's needs.

The WFS does not currently provide a proactive fire inspection program. WFS should revisit this opportunity, as it will assist in reducing the risk of fire within the community, as well as support current resourcing in fire operations. Completing a detailed inventory of inspectable properties, and then developing a risk-based inspection program will work to reduce the overall fire risk in the community. Concurrently developing a structured public education program will support fire inspection and prevention efforts.

Many fire services provide targeted messaging to their communities through poster and print and/or social media campaigns, Fire Prevention Week open houses, and community fairs or similar events. Community awareness initiatives are an important part of a comprehensive public education program, an area that WFS should pursue with additional vigour.

Enforcement of provincial legislation requiring smoke alarms is often utilized when landlords or tenants are negligent with their duties as prescribed by the fire code. Proactive community messaging

when such opportunities arise can be an important component of smoke alarm awareness programming.

Many communities develop additional comprehensive public education programs with a variety of elements designed to target specific segments of the community. The following are examples of programs that can be offered as part of a comprehensive public education program:

- Older and Wiser – tailored to seniors and some of the unique hazards they face.
- Farm Safety – for communities with significant agricultural risks.
- Fire Prevention Week Programming – many communities utilize this annual North American-wide event to target schools.
- Carbon Monoxide Awareness – national awareness campaigns usually occur in November every year as heating season comes into focus.
- Apartment Safety – utilised in communities where multi-unit apartment buildings can present specific hazards to residents.
- Fire Extinguisher Training – often provided on a cost-recovery basis for businesses and their employees.
- Heating Safety/Burning with Wood Safety – Usually provided in the fall and winter months to emphasise the importance of maintaining heating equipment, cleaning chimneys, etc.
- Electrical Safety – often focused on communities with a large presence of older buildings that may not have contemporary electrical installations.
- Home Escape Planning – almost always used to supplement smoke alarm messaging, though some departments utilize E.D.I.T.H. (Exit Drills in the Home) programming.
- Home and Building Renovation Safety – frequently offered in conjunction with local building officials and utility providers to promote safe renovation practices and permit promotion.
- Juvenile Fire Setters Program (formerly known as TAPP-C, the Arson Prevention Program for Children) – can be cofacilitated by police, local health services, and child and family services agencies.
- Learn Not to Burn – promotes the use of a comprehensive fire safety-based curriculum for use by teachers in an elementary school setting.

Several organizations exist to support local fire departments with their public education initiatives. These include the NFPA and the AFCA, amongst others. Departmental memberships in organizations such as these ensure that local service providers are kept abreast of current and emerging trends in fire safety.

As discussed in other areas of this report, the professional competencies of those practicing public education activities have become vital. The NFPA 1035 standard sets out the minimum qualifications for those engaged in public education activities.

The importance of a properly designed and supported media relations program cannot be overstated. Without the active support of local print and electronic media outlets, the full potential of public education efforts cannot be realized. Inherent in this is the use of social media channels by the department to reach as broad a consumer base as possible. The use of Facebook, Instagram, and X, (formerly known as Twitter) is a critical element in the development of an effective media strategy and public education program for the department.

Ultimately, it should be the goal of any public education initiative to change or alter behaviours such that community members - regardless of their age – are better informed about the fire safety risks they face personally, and how to make changes in their lives to better manage, control, and react to those risks.

Based on the information obtained, it is recommended that the WFS expand and formalize its Public Education activities by identifying and training existing POC firefighters to supplement (expand) the public education program.

The public education team should work collaboratively to wholly develop and deliver local programming.

Note: Even with the assistance of the three full time firefighters; It must be kept in mind that there may be a future need for a more dedicated investment in this area (of support). This is because the full-time firefighters are assisting with these duties as time allows.

3.4.2 Fire Cause Determination Activity Opportunities

The *SCA* requires all fires to be reported. The investigation and reporting of these fires are carried out by a Safety Codes Officer duly qualified and delegated by the municipality to carry out this work.

Beyond this mandate, it is in the interest of the community and department to initiate an investigation as to the origin and cause of each fire that occurs for a variety of reasons:

- to inform fire prevention and public awareness campaigns,
- to identify faulty consumer goods that may give rise to other fires, and
- to determine whether a fire was accidental in nature or human-caused and therefore potentially a criminal act.

In the case of the latter, stopping a serial arsonist/vandal may be of crucial importance to the community in terms of safety and property conservation. Moreover, it is proper to seek out persons

who commit crimes so that they may be prosecuted following the legal principles of general and specific deterrence.

EMG reviewed the singular WFS SOG (namely, SOG 10-2, dated January 2021) about fire investigations, and found it to be a very well-written, concise, and accurate document reflective of current operational considerations in the city.

For Wetaskiwin, there must be Safety Code Officers (SCO) trained, certified by the Safety Codes Council, and have the delegated authority to conduct investigations by the City. In many departments, the fire investigation function falls to dedicated FPOs or similarly qualified staff members. This serves as another strategy in recruiting and retaining staff for fire operational positions.

Due to the nature, extent, and complexity of some fire investigations, it would seem prudent to have other individuals properly trained to augment the existing qualified staff members and provide alternate in-house capabilities in the event these resources are unavailable, or an investigation becomes a multi-day event. Indeed, the Office of the Fire Marshal (OFM) now routinely sends a minimum of two investigators to incidents under their purview. This not only serves to add a "second set of eyes" to an investigative effort, but it also provides for a greater degree of safety for the investigators. Additionally, it also allows the appropriate development of potential alternate fire cause hypotheses - critical to the fire cause determination effort.

EMG recognizes and acknowledges that certain specialized courses, such as the NFPA 1033 course that is the subject of this discussion, are not readily available and when offered, typically are conducted at only selected locations in the province. This makes attendance at these courses more challenging for many departments. The WFS may want to discuss hosting a course locally to allow their neighbouring fire departments a nearby training opportunity, which could reduce staff training costs for all involved.

Alternately, consideration should be given to formalizing agreements with neighbouring fire services who have qualified staff available for such activities, perhaps on a reciprocal basis.

The OFM is mandated to conduct the investigation of serious fire incidents in the province. These incidents include fatal fires, fires that cause serious injuries, intentionally set fires, explosions, large loss fires, fires in multi-unit dwellings that spread beyond the unit of origin, and fires that may give rise to public attention or concerns.

In these situations, a multi-agency team approach is often employed involving representatives from police agencies, the Coroner's Office, Provincial Ministries such as Labour, and entities such as the

Technical Standards and Safety Authority (TSSA), the Electrical Safety Authority, and utility providers. Representatives of the insurance industry are most often involved in these investigations and therefore it is important, from a risk management perspective, for the WFS to be a full and active participant in these complex investigations as well. Often these investigations take several days to complete, while others can take weeks and months.

Several organizations exist to further the science and practice of fire cause determination. These include the Canadian Association of Fire Investigators (CAFI) and the International Association of Arson Investigators (IAAI). Again, departmental memberships in each will assist local investigators with keeping abreast of current trends and scientific developments in the field.

It is recommended that the WFS continue to invest in its fire cause and determination program by developing a continuing education program for additional qualified staff members that includes attendance at subject-focused seminars and through membership in the CAFI and the IAAI, and that the number of NFPA 1033 qualified investigators be increased.

The Department should further develop and refine specific SOGs…

- that dictate the scope and limitations of fire cause determination activities
- that relate to the engagement of the WFS with regional or provincial Fire Investigation Services staff
- to identify protocols to be followed when fatal fires or criminal actions result in fires
- to address when clandestine drug labs or illegal grow operations are encountered
- to outline the follow-up notifications that should be undertaken in a post-fire environment including:
    - the local health unit
    - local building and property standards officials
    - agencies charged with enforcing “child in need of protection” issues
    - local utilities
    - regulatory agencies such as:
        - the TSSA/the Electrical Safety Authority
        - Conservation Authorities
        - the Ministry of Labour
        - the Ministry of the Environment and Climate Change
    - other agencies that potentially may have interest in any response undertaken by the fire department.

As noted in a previous section, EMG observed that the WFS has a relatively complete set of contemporary SOGs, and as "living documents" these are being regularly refined, updated, and added to. Our compliments are extended in this regard.

3.4.3 Fire Code Inspection and Enforcement Activity Opportunities

An effective and proactive inspection and code enforcement strategy is necessary for the prevention and mitigation of fires. Currently WFS is not providing this service as indicated in their QMP. Best practices suggest that an effective inspection program be much more encompassing.

The safety of the residents of Wetaskiwin and its firefighters can be greatly impacted by a program that focuses on code-compliant buildings that perform well under fire conditions. Often this can only be accomplished by building owners who are knowledgeable about the fire safety features of their buildings, and who are properly motivated to maintain them in good condition. Many lives have been lost in fires due to non-functioning alarm systems, defective fire separations, blocked exits, and poorly designed or maintained building systems.

The inspection of existing buildings by properly qualified inspectors can greatly reduce the risk of exposure of a municipality. Conversely, a poorly or inadequately conducted inspection that fails to identify a hazard can greatly increase the risk of liability for a municipality when a fire does occur.

Generally, when a building is inspected and a violation of the Fire Code is noted, fire departments will work with an owner to move the building toward a state of compliance based on the severity of the deficiency found. It follows that simple corrections can be done quickly; however, more complex deficiencies may take a longer to correct. Fire departments have some latitude when issuing orders to correct a deficiency in terms of the time frame allotted to make the correction.

EMG has reviewed the WFS's lack of a formal fire inspection program and notes that there are areas of improvements that could be made that would benefit the community, as well as assist in the recruitment and retention of firefighters.

Currently, there is no action plan to inspect Assembly-type occupancies (e.g., schools, theatres, churches, restaurants), higher-risk residential occupancies (e.g., apartment buildings, multi-unit dwellings), commercial occupancies, industrial occupancies, or agricultural occupancies.

In terms of inspection programs that have an impact on fire rates, FUS recommends inspection intervals for various community elements based on the following table (provided for illustrative purposes only):

Occupancy Type	Inspection Frequency Benchmark
Assembly (Class A)	3 to 6 months
Institutional (Class B)	12 months
Single Family Dwellings (Class C)	12 months
Multi-Family Dwellings (Class C)	6 months
Hotel/Motel (Class C)	6 months
Commercial (Class E)	12 months
Industrial (Class F)	3 to 6 months

Each classification of building has its own inherent risks and degree of complexity. In many large departments, Fire Inspectors specialize in a single building classification. For example, multi-unit dwellings can take the form of a legacy home converted to a four-unit apartment, while another might encompass a six-storey mid-rise building of non-combustible construction. Each building has its own unique characteristics and differing Fire Code requirements based on size, occupant load, construction, etc.

Additional duties of a Fire Inspector or SCO role includes the review of development plans submitted to the building department for approval. These include site plans for new subdivisions or commercial/ industrial developments (fire department access, hydrant locations, roadway configurations, etc.) and individual building plan submissions (for compliance or input regarding sprinkler systems, fire alarm systems, water supply for firefighting, exiting requirements, location of fire suppression system components, fire separations, closures, etc.). In large communities, these duties typically fall to a municipally staffed Fire Protection Engineer, however, few small communities have the luxury of such a person on staff. Typically, municipal building officials' welcome input from fire inspectors or prevention officers as well to ensure that complex building codes are being properly interpreted and applied in a practical, pragmatic manner.

Based on this review, it is recommended that the WFS further develop its capacity and capabilities respecting Fire Code and Enforcement activities by identifying and appointing a full-time career Fire Inspector (FPO) who is fully trained and certified (or obtains certification within a reasonable time frame) as a Safety Codes Officer in Categories B & C.

The Fire Inspector should develop a work plan that includes the ability to conduct regular inspections in occupancies of high-risk including schools, multi-unit dwellings, and key industrial or commercial facilities, and well as by request or complaint, as a minimum. The department should additionally further develop SOGs that clearly articulate all aspects of the inspection process including issuing

orders, and the prosecutorial process to be followed when compliance with Fire Code requirements is not achieved within reasonable time frames.

The recommended position could also be shared – that is, an inspector who serves two or more departments in a geographical area on a cost-sharing basis or could be a function of another career person such as a Deputy Fire Chief if such a position is created – though this is not recommended.

3.4.4 Facts About Home Fire Sprinklers

The NFPA, the CAFC, and provincial Fire Chiefs Associations strongly support residential sprinkler systems to reduce the risk to life and property from fire. Because fire sprinklers react so quickly, they can dramatically reduce the heat, flames, and smoke produced in a fire. When properly installed and maintained, fire sprinklers help save lives, minimize damage, and make it safer for firefighters.

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

Automatic sprinklers are a highly effective and reliable element of total system designs for fire protection in buildings. Unfortunately, we must rely on American statistics due to the lack of Canadian statistics. Since there are so many similarities in building construction, however, the statistics are an accurate reflection of the Canadian experience.

According to NFPA Research, between the years of 2015-2019, 7% of reported home structure fires occurred in properties with sprinklers. These accounted for 1% of home fire deaths, 5% of home fire injuries, and 3% of home property loss.[7]

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

- 85% of all U.S. fire deaths occur in the home.
- The civilian death rate per 1,000 reported fires was 89% lower in homes with sprinklers.
- The civilian injury rate per 1,000 reported fires was 27% lower in homes with sprinklers. Many injuries occurred in small fires that did not activate the sprinkler. In others, someone was injured while trying to fight the fire in the initial moments before the sprinklers operated.
- The rate of firefighter injury per 1,000 reported fires was 60% lower where sprinklers were present.
- There was a 24% increase in fires that were confined to the object or room of origin when sprinklers were present.

[7] "U.S. Experience with Sprinklers", Marty Aherns, NFPA Research, accessed on October 30, 2023, https://www.nfpa.org/News-and-Research/Data-research-and-tools/Suppression/US-Experience-with-Sprinklers

[8] "U.S. Experience with Sprinklers," Marty Aherns, accessed on March 15, 2023.

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

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

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

By working with the developers and the public to promote the installation of home sprinkler systems, the WFS would be demonstrating a proactive approach to educating the public on another viable option for homeowners to help reduce the fire risk. As such, WFS should investigate and implement this safety initiative as part of its fire prevention and fire and life safety education initiatives.

3.5 Training Division and Staff Development

The development of staff through dedicated training programs serves as the foundation of any fire service, regardless of staffing model or deployment type. In addition to meeting provincial requirements, developing and implementing such programs provides staff the opportunity to obtain new skills and to enhance those for which they may already own. For many volunteer/ POC firefighters, achieving various levels of certification often serves as individual recognition and a sense of accomplishment for their commitment to the service.

Under the authority of the Province of Alberta's *Municipal Government Act (MGA)*, the City of Wetaskiwin is responsible for ensuring the safety and wellbeing of their citizens; this includes the delivery of fire protection services. Although it is the responsibility of the city to determine how to deliver such services, it is also the responsibility of the city to identify the levels of services that will be

[9] Safeatlast - The Latest Fire Safety Statistics - Stay Safe in 2021, Published January 30, 2021, Accessed February 24, 2023, https://safeatlast.co/blog/fire-safety/

provided by the fire department. For an example, Council may direct that the firefighters respond to a dangerous goods event at a basic level (Awareness) while structural firefighting may be identified at NFPA 1002, level II. Service levels should be captured within a by-law or Council policy and serve as the basis of developing a departmental training program.

Within the Province of Alberta, industry standards and Occupational Health and Safety (OHS) legislation are in place to uphold the safety of firefighters. Current legislation found in section 3(2) of the *OHSA*, section 15 of the OHS Regulation and throughout the OHS Code, outlines the critical skill sets that are necessary to deliver effective fire, rescue, and emergency response services, while ensuring that firefighters are trained to an acceptable standard. It is important to note that all paid-on-call firefighters must be provided with the same minimum training certifications as any career-based, full-time firefighter.

In 2019, the Province of Alberta released a summary of OHS requirements, which may be found in the OHS Guide for Firefighting.

When looking closer at the training section of the guide, the term "train" is described as to "give information and explanation to a worker with respect to a particular subject matter and to require a practical demonstration that the worker has acquired knowledge or skill related to the subject matter".

The guide goes on further to state that employers must ensure that training provided to a firefighter:

- Is provided before the firefighter is allowed to engage in emergency operations, performing a new work activity, using new equipment or work processes, or when they are moved to another area or work site.
- Is provided by competent persons (a competent person is a person who is adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision).
- Addresses occupational health and safety hazards associated with the tasks of the worker.
- Addresses the safe operation of equipment that is required to perform the operational assignments.
- Addresses procedures in place intended to protect workers from exposure to harmful substances. Employers have an obligation to ensure that workers are adequately trained in all matters necessary to protect their health and safety which may mean that employers will need to provide training beyond what is described here.

It is important to note that neither the Occupational Health and Safety Act nor the Province of Alberta mandate levels of training for firefighters. The determination of an appropriate training program and training levels are left to the fire department while the overall responsibility of aligning the departmental training program with the levels of service set by Council, while meeting the intent of OHS Legislation and NFPA training standards, is left to the Fire Chief or designate.

The City of Wetaskiwin has adopted the principles of OHS through the creation of a Commitment to Occupational Health, Wellness & Safety document and, by including references to minimum training standards, throughout departmental SOGs.

3.5.1 Training Division

WFS does not currently have a dedicated Training Division. The duties of overseeing training are shared between the Fire Chief and Deputy Fire Chief. Within the Administrative SOG, 1.05, firefighter training is captured in the position description of the Deputy Chief, as a support program for which the position provides to the Fire Chief. Training is identified within the position description of both the POC Captain and Lieutenant.

Formal training is delivered to staff in the evening once per week, for two hours. Training is delivered by certified NFPA instructors however, in cases where an instructor may not have the necessary certification, they will be paired with an instructor that does.

Departmental guidelines states that a member is required to attend 66% of the training classes offered, which equates to an average of 26 events or 52 hours per year. All training sessions are documented including a description of the event, attendance, and instructor(s) name. Following City of Wetaskiwin policy, training is also documented in individual personnel files.

WFS certifies firefighters through the Municipal Affairs branch of the Government of Alberta. Although other certification options are available outside of the province, the standardization and consistency of using one testing body reduces challenges that may be encountered through recognition of certified instructors or differences in process.

Certification testing provided by Municipal Affairs include:

- NFPA 1001 Firefighter Level 1 & 2
- NFPA 1002 Driver/Operator, Pump and Aerial Operator
- NFPA 1006 Technical Rescue Awareness, Rope Rescue 1 & 2 and Vehicle Rescue
- NFPA 1021 Fire Officer Levels 1 & 2
- NFPA 1031 Fire Inspector Levels 1 & 2
- NFPA 1033 Fire Investigator Levels 1

- NFPA 1041 Fire Service Instructor Levels 1 & 2
- NFPA 1051 Wildland Firefighter Level 1
- NFPA 1072 Hazardous Materials Awareness, Operations, and Technician

Upon successful completion of a training course, accreditation may then be achieved through either the International Fire Service Accreditation Congress (IFSAC) and/or Pro Board. Both certifications are recognized throughout North America with IFSAC also being internationally recognized.

It is important to note that after the successful completion of NFPA 1031 and 1033 programs, students must then complete their certification process through the Safety Codes Council (SCC) of Alberta. As a requirement of becoming an accredited Fire Investigator or Inspector, additional SCC specific training may be required as well as the successful completion of a Fire Investigation or Inspection Practicum.

Many fire departments today are faced with the challenge of achieving the desired levels of trained and competent firefighters to deliver the services their residents expect. All to often, due to individual workloads or a lack of staffing and funding, training programs do not achieve the training targets as quickly as they should. After completing a review of the firefighter training program currently being delivered by the WFS, EMG observed the following:

- WFS endeavours to hire recruit firefighters in groups so they enter and progress through training together.
- The WFS ensures that firefighters must meet minimum qualifications before responding to calls.
- Officers are provided the opportunity to expand on their leadership skills through online and regional training opportunities.
- When available, training opportunities are provided to all firefighters, outside of the weekly training schedule.
- The delivery of training is shared amongst several members, both full-time and POC.

While WFS personnel are doing an admirable job to ensure a more robust and consistent training curriculum, it is recommended that the WFS further develop its capacity and capabilities respecting firefighter training and certification by hiring a full-time career Training Officer who is fully qualified and certified to the NFPA 1041 Level II standard. The Training Officer should develop a work plan that includes the ability to coordinate the delivery of recruit and regular in-service training for all firefighters and to ensure certification to the relevant NFPA standards as detailed in this report.

In addition to hiring a full-time Training Officer, it is also recommended that the WFS provides opportunity for a pool of certified instructors to obtain their NFPA 1403 Live Fire Instructor

Certification. This level of certification not only aligns with NFPA standards for live fire training, but it also provides:

- Instructor responsibilities in operations of permanent gas fire and Class A combustible fueled live fire training structures.
- Creation and implementation of a sample pre-burn plan.
- Emergency planning and operations.
- Instructor and student pre-fire walk-through.
- Review and analyze relevant case studies.
- Working with students in fire conditions.
- Situational awareness during fire conditions.
- Fuel characteristics and safe loading.
- Participant personal protective equipment (PPE) inspections.
- Review of current industry research involving live fire conditions.
- Application of duties to ignition officer, safety officer, and instructor-in-charge.

An alternative to the hiring a full-time Training Officer, would be to assign this responsibility if/when the present full-time complement of firefighters is expanded. At that time, the responsibilities of a Training Officer may be assigned to one of those new positions.

EMG notes that although this may be an attractive option to reduce costs, care must be given to developing the schedule and expectations of the position in effort to prevent overtime costs.

Note: Even with the present assistance of the three full time firefighters; It must be kept in mind that there will be a future need for a more dedicated investment in this area (of support).

3.5.2 Training Facility

While many departments across Alberta rely on renting and traveling to another department's training facility, the City of Wetaskiwin is fortunate to own and operate their own training centre. Located on the east side of the city, the Wetaskiwin Regional Training Facility provides the WFS an area of approximately five acres to deliver a variety of training options to firefighters.

Constructed in 2017, at the center of the site is a three-storey steel structure which consists of seven containers and is designed to provide several training evolutions; included is live fire, search and rescue, ventilation, ladder raising and lowering, as well as bail-out drills. The structure was intended to be built in two phases, eventually elevating the facility to four storeys.

In addition to the structure, other training props have been placed throughout the site allowing firefighters to also practice vehicle extrication techniques, confined space/confidence building training, and pressurized flammable liquid fires (propane tree).

In the true sense of being a regional facility, the training centre has not only been used by members of the WFS but also by the County of Wetaskiwin, the First Nations Technical Services Advisory Group, and local First Nations mutual aid partners. Considering the size of the area the training facility is built on, there is ample room for future expansion.

When considering the design, construction, maintenance, and use of fire service training centers, two NFPA standards need to be considered:

> NFPA 1402 provides guidance for the planning of fire service training centers, focusing on the main components necessary to accomplish general fire fighter training effectively, efficiently, and safely.
>
> NFPA 1403 provides minimum requirements for conducting live fire training to ensure they are conducted in safe facilities and in a safe manner for participants.

Although many components of the WFS training facility have been constructed, EMG recommends a review and adoption of the 1402 standard as future alterations are made to the training facility or new training props are added.

It is also recommended that the NFPA 1403 standard be reviewed and adopted into practice for use in live fire training as needed. This standard is based on hard lessons learned by other departments and how they have been transformed into deliberate steps that should be taken prior to commencing a live fire exercise. Examples of recommended step are:

- Instructor In Charge (IIC): required to meet 1041 Level 2. All other instructors involved in the live fire training are required to meet the NFPA 1041 Level 1.
- Written learning objectives are required for all live fire evolutions.
- Weather conditions must be monitored and limits on wind and heat established to ensure safe burning conditions.

- The IIC shall not serve as the ignition officer for more than one burn in a row.
- Students minimum training requirements: safety, fire behavior, extinguishers, PPE, ladders, hose streams, overhaul, water supply, ventilation, forcible entry and building construction.
- NFPA 1584 Chapter 6 rehab rules also apply to all the instructors involved in the live fire training.

At the time of the review, EMG was not provided documentation to support the NFPA 1403 standard being used as a guide for conducting live fire exercises.

Even though EMG suggests that as the training site is further developed, and that consideration should be given to providing a dedicated budget to facilitate a planned approach to capital investments at the site to increase the functionality of this asset. It was noted by the WFS senior staff that they are not looking at expanding the facility due to costs of upkeep and resources (personnel) available to manage it as a regional facility.

In the past this was what past administration had hoped for, however it was deemed not practical as Nisku has a training facility already certified, and since WFS belongs to the South Capital Regional Training group, it makes more sense to utilize their certified training facility for live fire training. There is not the need for more externals to come into Wetaskiwin for WFS to train as they have other arrangements. So, potential future expansion and related timelines for the facility should be addressed based on WFS needs and circumstances.

3.5.3 Staff Development

Within today's fire service, the development of staff through dedicated firefighter training programs and career pathing is essential not only to the individual, but for the administration team as well. Staff programs are often based on the needs of the department, levels of service, and expectations of the community, while it is also empowering for staff members to take ownership in the direction of their career. Training programs and career pathing serve as a tool for administration when planning departmental budgets and individual learning plans. Identifying training costs in advance allows for budgets to be adjusted to ensure the availability of adequate funding.

In the most basic of terms, a firefighter's career will lead them into one of two streams: Fire Leadership (Administration) or Fire Department Operations. Working to the same common goal, the delivery of emergency services to the residents of the community, each pathway provides separate options.

Fire Leadership (Administration)

The leadership team of a fire service traditionally consists of non-unionized staff who are employed to lead, administer, and oversee, specific portfolios, divisions, and branches of a service. Operations, Administration, Logistics and in some cases, Fire Prevention, are examples of such areas.

Members of fire leadership teams often find themselves challenged with having to balance departmental needs with those of the community. For instance, direction provided by elected officials may be to seek out efficiencies and reduce budgets, while the needs of the department demand growth to address the rising costs of fire safety equipment. Training provided through the NFPA 1021 Fire Officer program, addresses such challenges.

Positions within fire leadership also hold a high level of rank, which serves as an indication to their authority. These positions primarily include the fire chief, the deputy fire chief, and the assistant chief.

The City of Wetaskiwin employs two Chief Officers – one Fire Chief and one Deputy Fire Chief. These positions provide a senior level of supervision within the organization, while having oversight of stations, the training facility, and in particular, emergency operations. While it is understood that the Fire Chief and Deputy Chief are on call essentially 24/7 (notionally like all City Department heads), these roles are uniquely different, and this must be recognized.

Both positions require constant awareness and active monitoring of all departmental emergency responses, and a series of back-to-back or simultaneous incidents can create an extraordinary – and sometimes, untenable – workload. Real reprieve is required for mental and physical wellness; EMG notes that this break may derive from the development of a pool of qualified Duty Officers. A Duty Officer would be responsible for providing after-hour administrative and response coverage, allowing both Chief Officers dedicated time away.

Fire Department Operations

Often referred to as *boots on the ground*, operations staff are typically assigned to a division or branch within a service. As a member progresses through their career, they may move between a variety of positions while rising in rank. Operational levels traditionally found throughout the Province of Alberta include:

- Platoon Chief:
- District/Battalion Chief
- Chief Training Officer
- Fire Marshal
- Lieutenant/Captain
- Firefighter

The positions of a Platoon, or District/ Battalion Chief are ones that represent elevated levels of supervision within the organization. Working with the Fire Chief with strategic leadership in mind, they provide oversight, status updates, repair needs, and make recommendations to improve operations, training, apparatus and equipment and station needs.

The Chief Training Officer (CTO) is responsible for supervising the Training Division or Branch, while maintaining responsibility over instructors and the programs being delivered. The CTO works alongside fire leadership developing annual training plans and strategizing on the delivery of training for staff. It is a requirement of a fire service instructor to possess both the skills and certification of the training for which they are providing. Dependant on the size of the department, positions reporting to a CTO may include other Training Officers.

Fire Marshals are often responsible for providing oversite to the Fire Prevention Branch. Fire Prevention encompasses two primary functions – Fire Investigation and Fire Inspection services. These two services are coupled with a public education component. Dependant on the size of the department, positions reporting to the Fire Marshal include FPOs and Public Educators.

The positions of Lieutenant/Captain are ones that represent the first level as a supervisory position within the organization. With these positions comes great responsibility, tactical leadership, and a proven ability to meet and exceed expectations. A superior level of knowledge and experience in fire ground operations, delivery of training programs, and ability to supervise a platoon of firefighters is all-encompassing. There may be times when a Captain may need to assume command of an incident in the absence of a senior officer.

Firefighters are front line staff members that are tasked with the delivery of fire and emergency medical services. Firefighters commit a large amount of time to training as it is imperative to obtain new skills and maintain those that are already possessed. Firefighters are responsible to a Lieutenant

or Captain, and often participate in routine maintenance activities, company level inspections, and other assigned duties.

When considering the development of staff, rank levels provide the foundation for the training requirement of each position. As an example, when a new firefighter is hired, they are required to complete both a theoretical and practical program covering all elements of the NFPA 1001–I and II Standard; however, when a firefighter is promoted to Lieutenant, additional training including Fire Officer and Fire Service Instructor is required.

To aid in the creation of a Staff Development Plan, EMG has provided a sample template of suggested NFPA and ICS training levels for positions found in the fire service. When considering department service levels, position descriptions, and organizational structure, the WFS may expand or contract the plan to meet departmental needs; this sample is not exhaustive. It is suggested that training levels for staff should not be limited to those identified (in the chart). Other programs such as wildland, medical administrative related training, etc., may be added.

TABLE #2: SUGGESTED TRAINING LEVELS PER POSTION

	Position	Suggested Training Levels
Fire Leadership	Fire Chief	NFPA 1001-2, 1002, 1021-4, 1072 Command, 1521, ICS 400
	Deputy Chief	NFPA 1001-2, 1002, 1021-3, 1041-2, 1051, 1072 Command, 1521, ICS 300
	Assistant Chief	NFPA 1001-2, 1002, 1021-2, 1041-2, 1051, 1072 Command, 1521, ICS 300
Operations	Platoon/ District/Battalion Chief	NFPA 1001-2, 1002, 1006, 1021-2, 1041-2, 1051, 1072 Command, 1521, ICS 200
	Chief Training Officer	NFPA 1001-2, 1002, 1006, 1021-2, 1041-2, 1051, 1072 Operations, 1521, ICS 200
	Fire Marshal	NFPA 1001-2, 1021-2, 1031, 1033, 1035, 1051, ICS 200
	Lieutenant/Captain	NFPA 1001-2, 1002, 1006, 1021-1, 1041-1, 1051, 1072 Operations, ICS 200
	Firefighter	NFPA 1001-2, 1002, 1006, 1051, 1072 Operations, ICS 100

As previously noted, the WFS has adopted the principals of OHS through the creation of a Commitment to Occupational Health, Wellness & Safety document and, by including references to minimum training standards, throughout departmental SOGs. Building on this, EMG is recommending the WFS, with the assistance of the City's Human Resource Department, create job descriptions for each position (whether full-time or POC) within the City's fire service. Each description should list minimum training requirements along with roles and responsibilities. Clearly identified training requirements will assist staff members to understand the levels of training required to progress to another position/role.

Succession Planning

Succession planning is the process of identifying key roles in a fire department and determining the level of readiness that potential members possess to fill these roles. Occasionally, a fire department may prepare a single individual for a particular role but may otherwise prepare several persons in the spirit of building a talent-rich pool in the fire department and allowing for the promotion of the best candidate for the role to be filled.

Succession planning creates employee involvement as training, mentoring, education, and coaching are utilized to prepare the employee. A succession plan takes time and resources and creates the foundation for members to possess the knowledge, skills, and abilities to be promoted and take on formal management and leadership roles in the fire department.

A key component of succession planning is recognizing and providing the necessary education, training, mentoring, and coaching to those that want to be promoted to a higher-ranking chief officer position. EMG suggests that succession planning become a priority for the fire department and that it become an area of focus for the leadership team for all ranks and positions.

The following steps outline Rothwell's roadmap to successful succession planning.

FIGURE #3: SUCCESSION PLANNING MODEL

Step 1: Get Commitment

Fire management and the Human Resources (HR) staff must agree upon why succession planning is necessary for the fire department and how to implement training components to prepare personnel for future chief officer promotional opportunities in the department. A commitment must be made by the department in terms of budget allocation. Further, a commitment must be made by individuals that are willing to put in the time and energy into their education and training.

Step 2: Analyze the work and people

Ensuring that job descriptions identify the required competencies and qualifications for chief officer positions.

Step 3: Evaluate performance

The ongoing evaluation of the individuals, what the results are that they are expected to achieve, and the competencies and behaviours they are expected to demonstrate.

Step 4: Analyze the work and people needed in the future

Fire department management staff must anticipate the future qualifications and needs of the department based upon its strategic objectives and the competencies required to meet those objectives. This will require regularly scheduled reviews of the qualifications and competencies required for the chief officer positions.

Step 5: Evaluate potential

The assumption cannot be made that successful performance in the past guarantees successful performance in the future. The department must look at objective ways to evaluate individuals to determine how well they will function at a higher level of responsibility.

Step 6: Develop people

This step is carried out by a formal career development plan that identifies what individuals must do in terms of education and training to increase their chances of success for promotion in the future.

Step 7: Evaluate program results

The success of the program is indicated by the support and positive results in terms of budgetary program support, participation, and successful promotions.

A well thought out and implemented succession planning process takes time and resources to develop, but the result is the development of a fire department's talent pool with members actively participating in their own career development. A formal organization development program can be created that identifies technical competencies and core (corporate) competencies and qualifications for Fire Chief, Deputy Fire Chief, District Chief, Captain, and Firefighter with formal implementation.

3.6 Fire Suppression/ Emergency Response

WFS is a composite fire department in that it has both career and POC personnel. The career contingent consists of the Fire Chief, the Deputy Fire Chief, and three full-time firefighters. The fire suppression division consists mainly of POC firefighters dispersed amongst the two fire stations.

3.6.1 Suppression Staffing

At present the Department responds to approximately 750 calls per year. The full-time firefighters work during the weekdays to ensure a consistent response to calls when the POC firefighter are less apt to be available (due to work and other commitments). The evenings and weekends are covered by the POC firefighters. As call volumes increase, so will the full-time staffing requirements.

Based on WFS' staffing model, the NFPA standard that relates to the emergency response of the Department is 1720 - *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments.* This NFPA standard notes the following operational goals:

Staffing and Deployment

- *4.3.1 The fire department shall identify minimum staffing requirements to ensure that the number of members that are available to operate are able to meet the needs of the department.*

4.6 Initial Firefighting Operations

- *4.6.1 Initial firefighting operations shall be organized to ensure that at least four members are assembled before interior fire suppression operations are initiated in a hazardous area.*
- *4.6.2 In the hazardous area, a minimum of two members shall work as a team.*
- *4.6.3* Outside the hazardous area, a minimum of two members shall be present for assistance or rescue of the team operating in the hazardous area.*

Note: *even though there are only three full-time firefighters on duty during the weekdays, their numbers can be bolstered by the response of the Deputy Chief and/or Fire Chief. This provides for four firefighters at the scene until the POC firefighters can arrive.*

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

Based on studies and evaluations conducted by the NIST and the NFPA, no interior attack is to be made by the firefighters until sufficient personnel arrive on scene. The expectation is that a minimum

of three firefighters and one officer arrive on scene to make up the initial fire suppression team. This team of four can effectively do an assessment of the scene, secure a water source (e.g., fire hydrant), ensure the fire truck is ready to receive the water and get the fire pump in gear, as well as unload and advance the fire hose in preparation for entry into the structure. A team of four also allows for adherence to the recommended "two-in, two-out" rule, referring to the presence of two firefighters inside the structure with two outside ready to go in as back-up.

The Fire Chief does ensure that each station has a complement that allows for an initial full crew response to incidents. To accomplish this, a response protocol is in effect that ensures whenever a station and its firefighters are dispatched to any type of call where back-up may be required, the other station is automatically dispatched to the same incident.

In 2010 and 2020, the NIST conducted a study on fire crew efficiencies and the tasks that may be completed during a residential structure fire with different sized crews. The following research questions guided the experimental design of the low-hazard residential fireground experiments documented in this report:

- How does crew size and stagger affect overall start-to-completion response timing?
- How does crew size and stagger affect the timings of task initiation, task duration and task completion for each of the 22 critical fireground tasks?
- How does crew size affect elapsed times to achieve three critical events that are known to change fire behavior or tenability within the structure?
    - Entry into structure?
    - Water on fire?
    - Ventilation through windows (three upstairs and one back downstairs window and the burn room window).
- How does the elapsed time to achieve the national standard of assembling 16 firefighters at the scene vary between crew sizes?

The experiments were conducted in a burn prop designed to simulate a low-hazard fire in a residential structure described as typical in NFPA 1710. A low-hazard occupancy is defined in the NFPA Standard as a one, two, or three-family dwelling and some small businesses. Medium hazard occupancies include apartments, offices, mercantile and industrial occupancies not normally requiring extensive rescue or firefighting forces. High-hazard occupancies include schools, hospitals, nursing homes, explosive plants, refineries, high-rise buildings and other high life hazard or large fire potential occupancies.

The study found that four-person crews were able to complete 22 essential firefighting and rescue tasks in a typical residential structure fire 30% faster than a two-person crew and 25% faster than a

three-person crew[10]. Having crews of four firefighters lessens the risk of injury as more personnel are available to complete assignments.

3.6.1 National Fire Protection Association 1720

Chapter 4 of the NFPA 1720 (2020) Standard identifies the number of response personnel for the deployment of volunteer/POC firefighters:

- Section 4.3.1: "the Fire Department shall identify minimum staffing requirements to ensure that the number of members that area available to operate are able to meet the needs of the department.
    - In **Urban** areas with a population greater than 1,000 per square mile or 2.6 km^2, there should be a minimum response of **15 staff within 9 minutes**, 90%of the time.
    - In **Suburban** areas with a population of 500 – 1,000 per square mile or 2.6 km^2, there should be a minimum response of **10 staff within 10 minutes,** 80% of the time.
    - In **Rural** areas with a population of less than 500 per square mile or 2.6 km2, there should be a minimum response of 6 staff within 14 minutes, 80% of the time.
    - In **Remote** areas with a travel distance of greater than or equal to 8 miles or 12.87 km, there should be a minimum response of **4 staff directly dependent on travel distance,** 90% of the time.

With a current permanent population of roughly 12,500 within approximately 18.75 square kilometres (or 7.24 square miles), the main areas of Wetaskiwin fall into the Urban standard with approximately 1,700 residents per 2.6 square kilometres (or square mile). However, there area parts that do fall into the Suburban standard. As such, based on the NFPA recommended staffing, the WFS would require at a minimum 10 firefighters on scene within 10 minutes 80% of the time. This requirement noted within the NFPA standard, may not be realistic for a community like Wetaskiwin, but it does provide the Fire Chief and Council with the NFPA standard expectations that are regarded as an industry benchmark/goal. Having noted this, it is Council that sets the goals and expectations of the fire service in consultation with the Fire Chief.

***Note**: To accomplish the NFPA Standard, a fire department should endeavour to meet the stated minimum response standards based on responding to a 2,000-sq. ft. single family dwelling. The dwelling (noted in the Standard) does not have a basement or other exposures (buildings close enough to each other to create a greater possibility for fire spread). Most homes have basements,*

[10] "Report on Residential Fireground Field Experiments," Averill, Jason D. et all, April 2010, https://tsapps.nist.gov/publication/get_pdf.cfm?pub_id=904607

however, and these homes are often built close enough to each other to create that "exposure" for potential fire spread, which must be considered by the fire department in its response efforts.

Fire Response Curve

When considering the response times and needs of a community, the fire response curve (Figure #4) presents the reader with a general understanding of how fire can grow within a furnished residential structure over a short period of time. Depending on many factors, the rate of growth can be affected in several different ways, which can increase or suppress the burn rate through fire control measures within the structure. As an example, within older legacy homes, fire spread, and flashover may progress slower than within newer homes due to the type of construction and contents. Some older homes may not witness flashover for up to 25 minutes, whereas newer homes could incur flashover in as little as 4 minutes within the room or origin.

Note: *Flashover is a situation in which the entire contents of a room ignite due to the extreme high heat conditions. This situation is not survivable by unprotected occupants; even protected firefighters are at great risk of severe injury and/or death due to the extreme and heat conditions.*

The response time of a fire department it is a function of various factors including, but not limited to:

- The distance between the fire stations and response location
- The layout of the community
- Impediments such as weather, construction, traffic jams, lack of direct routes (rural roads)
- Notification time
- Assembly time of the firefighters, both at the fire station and at the scene of the incident.
    - Assembly time is the summation of the dispatch time, turnout time to the fire station, and response to the scene. It should be noted that assembly time can vary greatly due to weather and road conditions along with the time of day (traffic).

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

FIGURE #4: FIRE RESPONSE/PROPAGATION CURVE

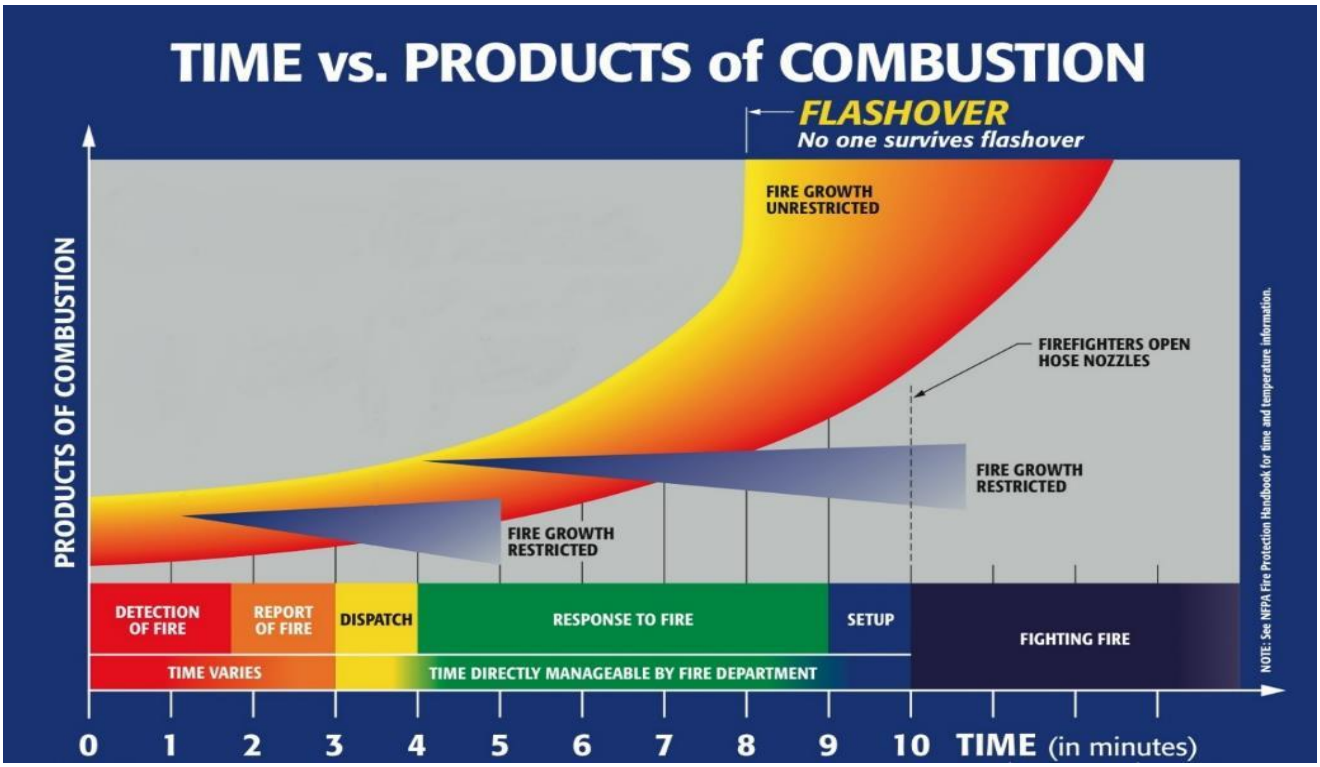


Figure #4 notes the following time variables:

- Detection of Fire – this is when the occupant discovers that there is a fire. For the purposes of this chart, detection time is noted as being within one to one and a half minutes – this could in fact be shorter or longer. The fire may be in a very early stage or could have been burning for quite some time before being detected.
- Report of Fire – this is when someone has identified the fire and is calling WFS for help.
- Dispatch – the time it takes the dispatcher to receive the information and dispatch the appropriate resources.
- Response to the Fire – response time is a combination of the following:
    - Turnout Time – how long it takes the career firefighters to get to the fire truck and respond or how long it takes the POC firefighters to get to the fire station to respond on the fire truck.
    - Drive Time – the time from when the crew advises dispatch that they are responding until the time that they report on scene.
- Setup Time – the time it takes for the fire crews to get ready to fight the fire.
- Fighting the Fire – actual time it takes to extinguish the fire on scene.

The overall goal of any fire department is to arrive at the scene of the incident as quickly and as effectively as possible. If a fire truck arrives on scene in ten minutes or less, there is increased opportunity to contain the fire by reducing further spread to the rest of the structure.

3.6.2 Response Data

Based on a review of the response data supplied, along with discussions with the Fire Chief, WFS is achieving a varying level of success in meeting the NFPA response criteria. By utilizing this information in conjunction with the supplied response maps created by EMG, we can see the effect of road networks on response times by emergency responders.

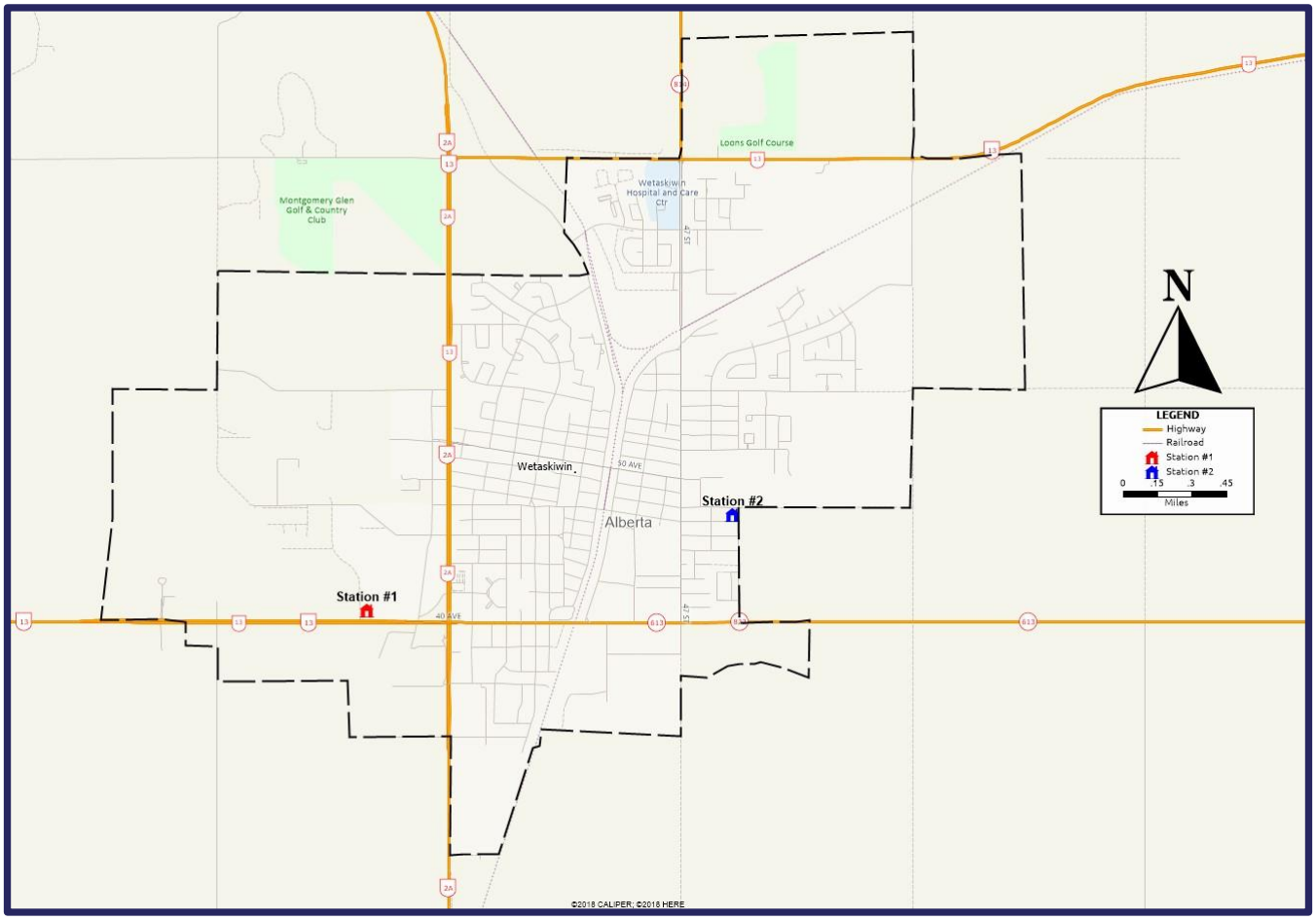
WFS response times should be monitored based on the NFPA 1720 standards which is measured from "dispatch time to time of arrival at the incident". This includes from the time the call is received, when the fire station tones activate, when the firefighters get on the fire trucks, and finally arrive at the emergency scene location.

Note: *In monitoring time measurements, the 90th percentile criterion is the recommended practice that is endorsed by the NFPA. This data is more accurate since it is evaluating the times based on 90% of the calls as opposed to averaging the times at the 50th percentile. For example:*

- *9 out of 10 times the fire department arrives on scene in 9 minutes or less, which means that only 10% of the time they are above that 9-minute mark,*
- *as opposed to 5 out of 10 times (average) the fire department arrives on scene in 9 minutes or less, which means that 50% of the time they are above the 10-minute mark.*

Due to the size of the city, the use of a travel time grid to depict drive time zones is of no value because any part of the city can be reached within approximately nine to ten minutes. It can therefore be concluded that through the provision of two stations, WFS has ensured good coverage for the city on both sides of the railway line that bisects the city, running north and south.

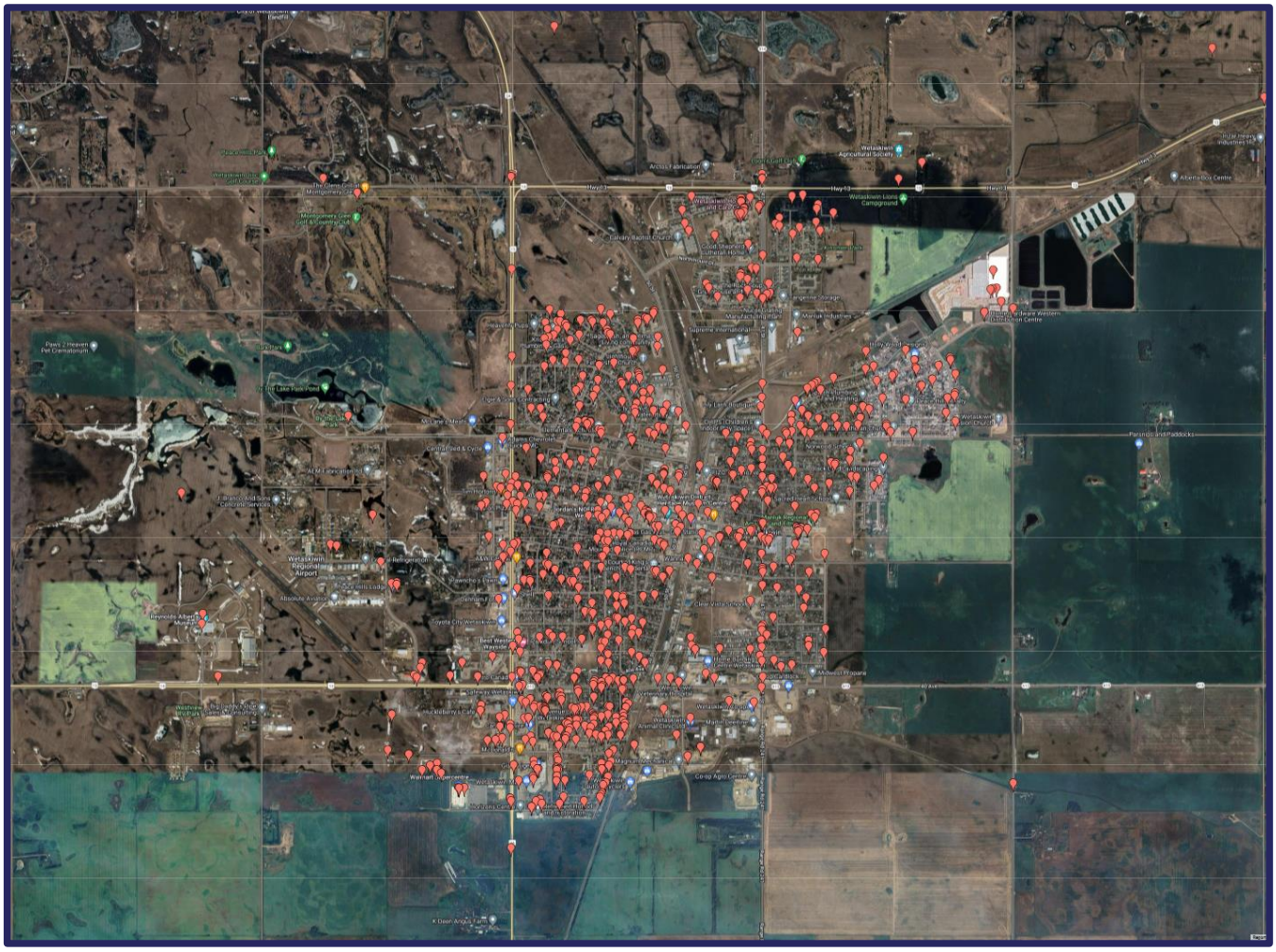
FIGURE #5: LOCATION OF THE CURRENT FIRE STATIONS



Although the NFPA response times are not mandated, it would be beneficial for the Fire Chief to have a response time goal supported by Council as a benchmark. It is recommended that the Fire Chief present a response time goal for the approval of council, which may reference NFPA 1720 (2020 Edition). The expectation of 15 staff in 9 minutes, 90 percent of the time may not be practical, however, by understanding what response times for each type of community is recommended, Council will be more informed about industry benchmarks. The key is to identify a response time that allows the Fire Chief to monitor and report to Council about the level of success the fire department is experiencing.

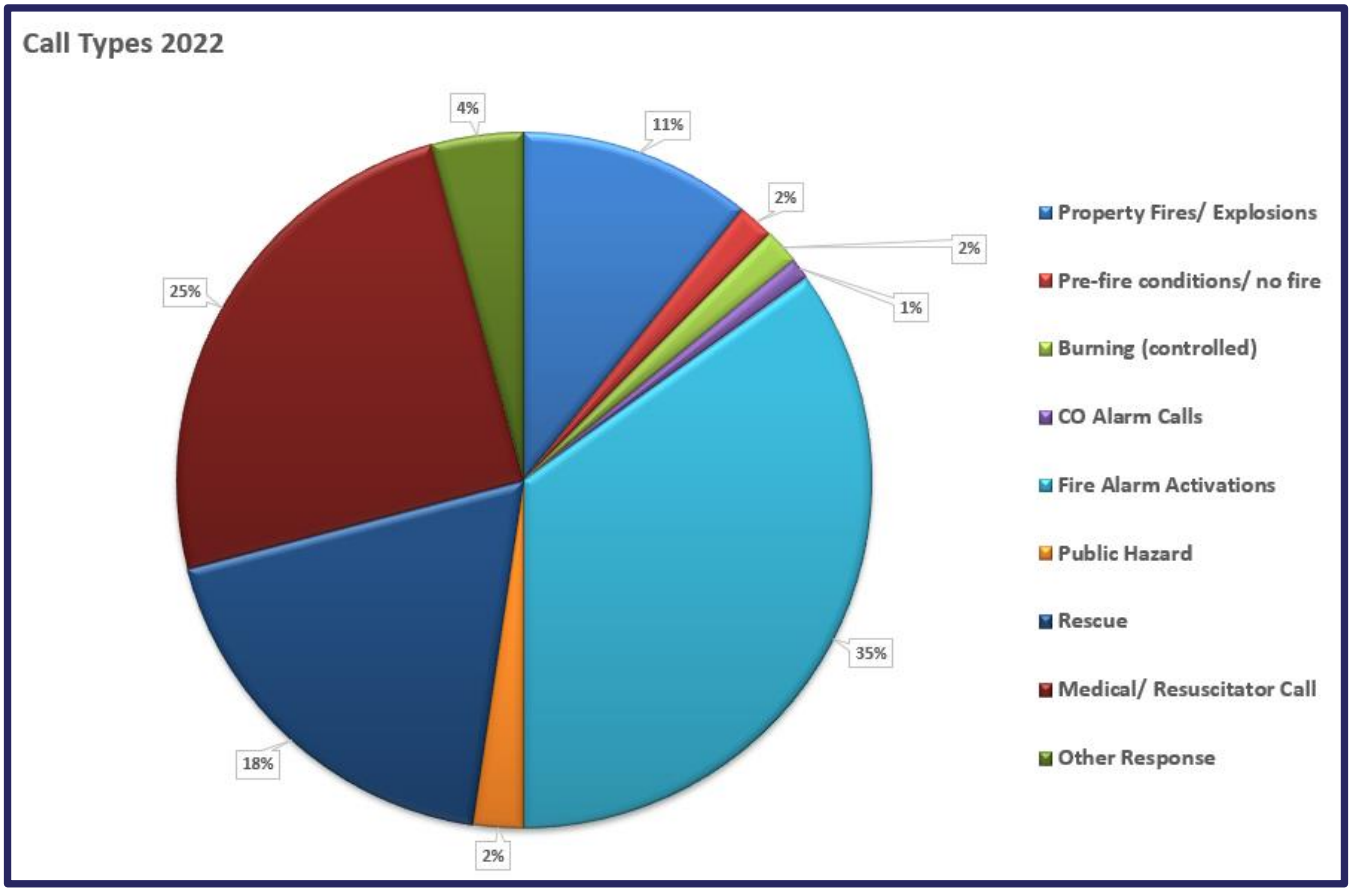
The following map (supplied by the WFS) is a depiction of where the calls have been occurring within the city over the past three years. This type of information can assist the Fire Chief in assessing present and future fire station locations in relation to improving response capabilities.

FIGURE #6: CALL CLUSTER MAP



The following chart (using the supplied data) helps to identify the types of calls that are creating the bulk of response demands. The figures illustrate data for 2022 and 2021 respectively. The WFS did supply data for 2020 and 2019, which is included in the appendix. Along with the types of calls, an addition chart for each year identifies the fire department's response times in relation to the NFPA Standard for a city with the population density of Wetaskiwin.

FIGURE #7: CALL TYPES AND FOR 2022



As illustrated in the data presented, the three most frequent types of responses by the WFS are:

- Fire Alarm Activations – at approx. 35%.
- Medical/Resuscitator – at approx. 25%, and
- Rescues – at approx. 18%.

There are two purposes for tracking call types. The first is to identify if any call types are rising at an alarming rate comparable to previous years, such as medical responses. The fire service may then investigate probable causes for the pronounced increase and seek solutions. For example, in the case of an increase in medical calls, one might question if these are due to some type of epidemic or perhaps the lack of available ambulances in the region?

The second purpose for tracking call types is to ensure that the firefighters are being properly trained to meet the key challenges that the department is facing.

FIGURE #8: RESPONSE TIMES FOR 2022

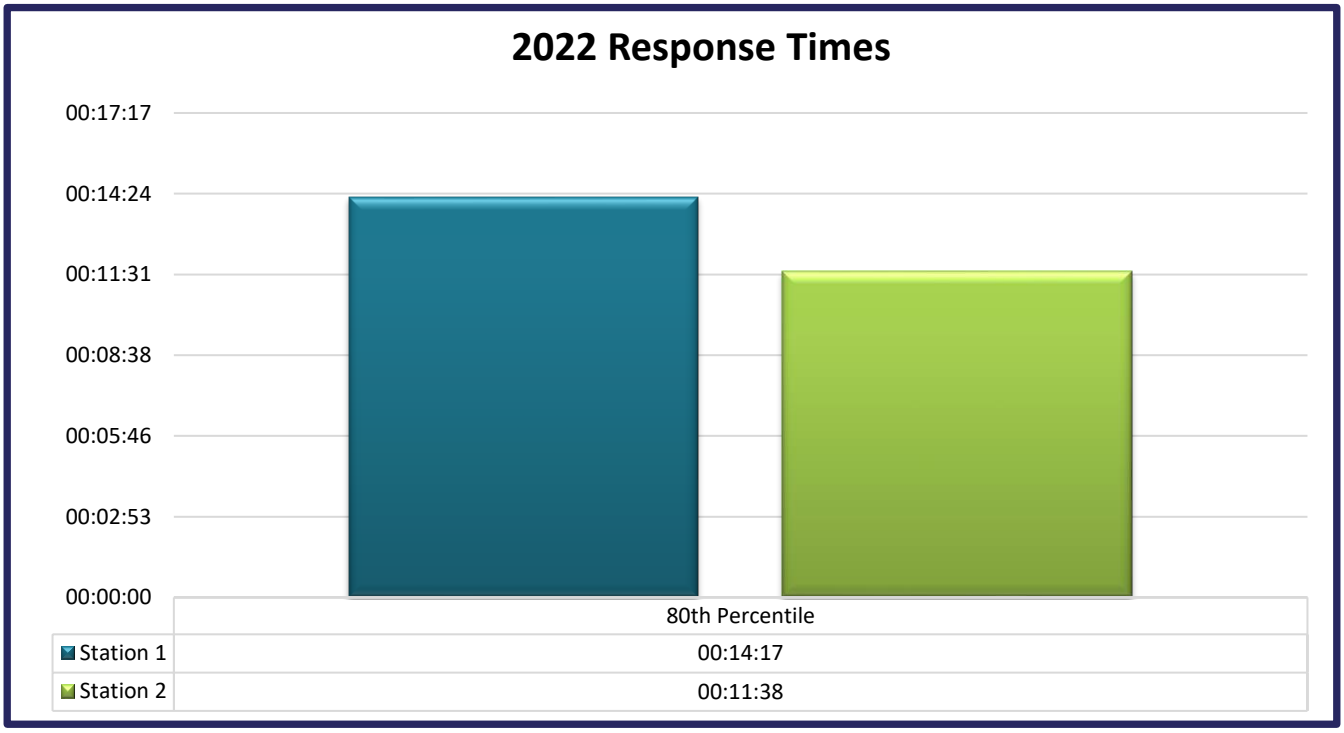


FIGURE #9: CALL TYPES FOR 2021

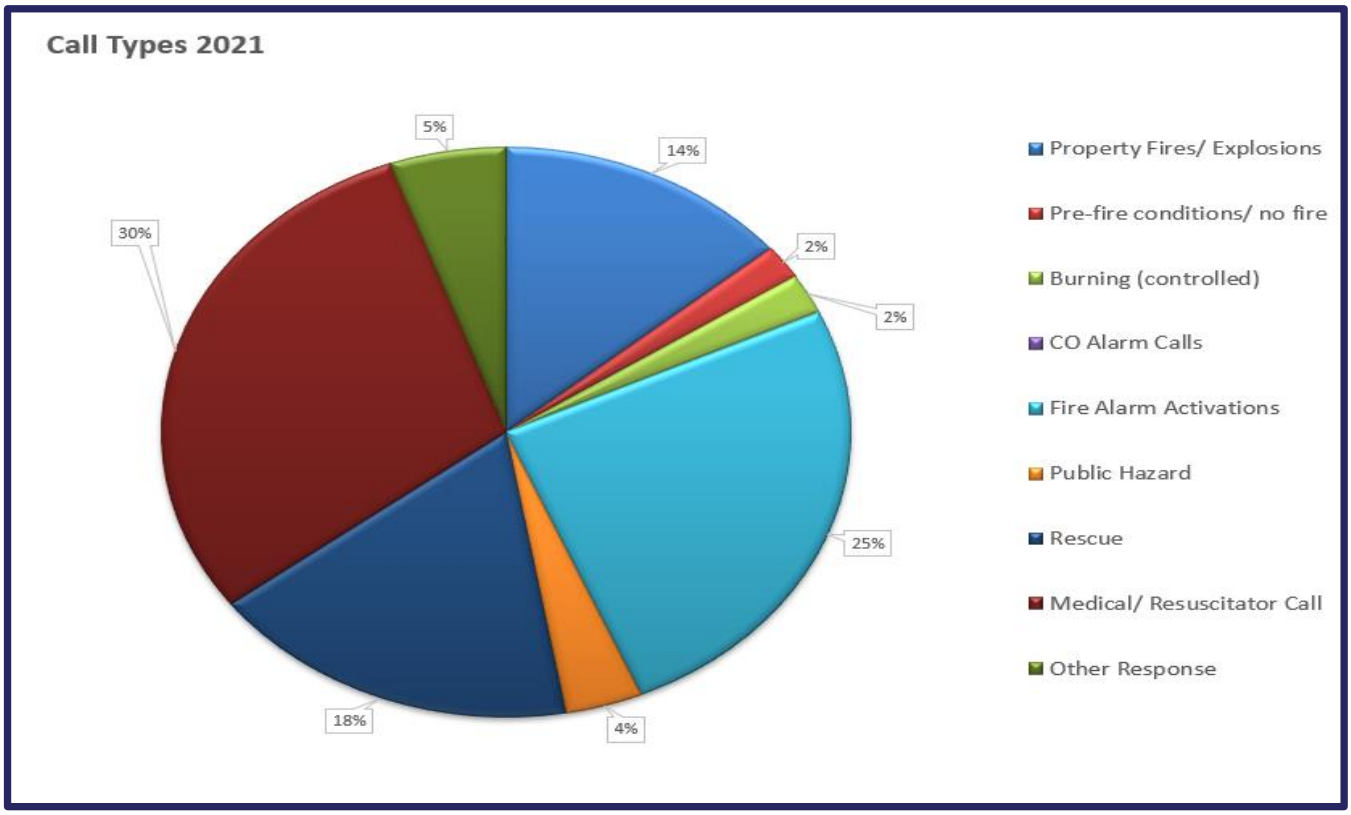
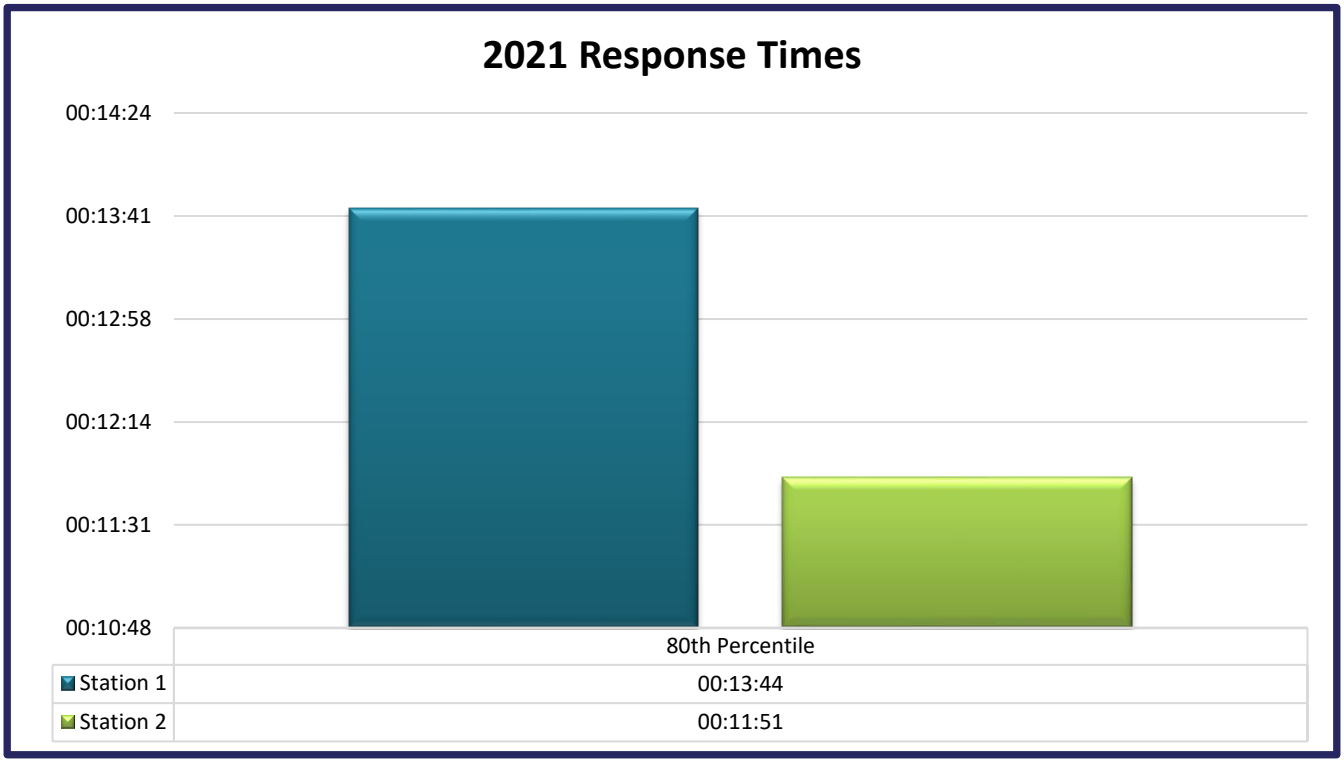


FIGURE #10: RESPONSE TIMES FOR 2021



Overall, the data supplied by WFS indicate that the department is doing a respectable job at working towards meeting the NFPA 10-minute response standard which is a challenge for any composite department. Continued monitoring of response times is always recommended to ensure that the department stays on track or can identify causes for increased response times.

3.7 Communications

The WFS receives its dispatching services from the Yellowhead County.

The Fire Chief indicated that they may be moving to another service provider but is still researching this initiative. It was noted that the Yellowhead dispatchers are not certified to the NFPA standard 1225, *Standard for Emergency Services Communications*. This may be something that WFS adds into their contract if they continue to utilize Yellowhead County for dispatching services.

3.7.1 Radio System

Radio communications is a paramount lifeline for firefighters; complete coverage is a must to ensure firefighter safety. With the implementation of Next-generation 9-1-1 technology, the city should be preparing for radio system upgrades to a full digital platform. At this time, no actual cost estimates have been announced by the Canadian Radio-television and Telecommunications Commission (CRTC).

Therefore, the Fire Chief should keep in contact with their dispatching partner to identify actual implementation dates along with estimated cost to Wetaskiwin.

3.7.2 Next-Generation Communications (NG 9-1-1)

In June of 2017, the CRTC created regulations regarding the next-generation communications for 9-1-1 centres. This modern technology will

> *"…enable Canadians to access new, enhanced, and innovative 9-1-1 services with Internet Protocol (IP)-based capabilities, referred to as next-generation 9-1-1 (NG9-1-1) services. For example, Canadians could stream video from an emergency incident, send photos of accident damage or a fleeing suspect, or send personal medical information, including accessibility needs, which could greatly aid emergency responders."*[11]

The following is an excerpt from the CRTC website regarding the program and its benefits for enhancement to public safety communications.

Establishment of new deadlines for Canada's transition to next-generation 9-1-1

The Commission sets out determinations in relation to new deadlines and other matters for the implementation and provision of next-generation 9-1-1 (NG9-1-1) networks and services in Canada, so that Canadians can access new, improved, and innovative emergency services with Internet Protocol-based capabilities. The Commission aims to maintain the NG9-1-1 framework roadmap for the establishment of NG9-1-1 networks and the introduction of NG9-1-1 Voice, albeit with new, extended deadlines.

Specifically, the Commission directs NG9-1-1 network providers, by 1 March 2022, to, among other things, establish their NG9-1-1 networks, complete all NG9-1-1 production onboarding activities, and be ready to provide NG9-1-1 Voice, wherever public safety answering points (PSAPs) have been established in a particular region.

The Commission also directs telecommunications service providers (TSPs) to (i) make the necessary changes to support NG9-1-1 Voice in their originating networks that are technically capable of supporting NG9-1-1 Voice, including completing all NG9-1-1 production onboarding activities and testing activities, by 1 March 2022; and (ii) begin providing, by 1 March 2022, NG9-1-1 Voice to their customers served by networks that are technically capable of supporting NG9-1-1 Voice, wherever PSAPs have been established in a particular region.

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

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

Further, the Commission directs, among other things, incumbent local exchange carriers (ILECs) to decommission their current 9-1-1 network components that will not form part of their NG 9-1-1 networks by ***4 March 2025*** *or earlier if all the TSPs and PSAPs in an ILEC's operating territory have completed their transition to NG9-1-1.*[12]

3.7.3 NG 9-1-1 Considerations

As noted in the CRTC excerpt, March 4, 2025, is the revised key date to work with; by this date, current 9-1-1 network components that will not form part of the NG9-1-1 networks must be decommissioned. The Fire Chief must ensure that Wetaskiwin is a stakeholder at the steering committee table through direct involvement or as part of the regional committee for this implementation plan.

The municipalities must understand that there will be significant expenses for the fire dispatch to implement NG 9-1-1 and that any dispatching fees will likely increase for all fire departments it dispatches to cover these additional costs. It was evident in their invoicing that funds are already being obtained for NG 9-1-1, but for what purpose remains unknown.

Currently there is no firm understanding as to the costs that are going to be incurred with the implementation and annual operating costs of NG 9-1-1.

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

3.8 Health, Fitness, & Wellness

Health and wellness of fire staff is a key focus for all municipalities and Wetaskiwin is no exception. Due to the nature of POC firefighters maintaining a separate primary vocation, a focus on fitness can be overlooked. The inherit nature of firefighting is both stressful and physically demanding. During the review by EMG, it was noted that there is no fitness equipment at the fire stations.

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

To support the fitness of the firefighters, the Fire Department should strive to include standardized fitness equipment at both stations. Further consideration should be made for use of a fitness instructor to assist the firefighters in establishing a proper workout program. Alternatively, as a minimal resource, a fitness instructor should demonstrate the proper, safe way to use the exercise equipment. The Department should also have SOGs relating to the proper use of the fitness equipment.

Many fire departments routinely test their firefighters to meet occupational fitness tests delivered internally or by a third party. NFPA 1582 details basic expectations placed upon firefighters. WFS is encouraged to review these and incorporate them into both candidate testing and ongoing firefighter fitness and functionality. It is recommended that, as part of a larger commitment to firefighter health and wellness, WFS review the physical expectations of a firefighter for use in training and recruiting.

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

The 14 essential job tasks explained in NFPA 1582 lay the groundwork for NFPA 1583 *Standard on Health-Related Fitness Programs (HRFP) for Fire Department Members*. The standard states, "this standard outlines a complete HRFP for members of fire department involved in emergency operations to enhance their ability to perform occupational activities and reduce the risk of injury, disease, and premature death". The applicable portion of the standard comes from section 4.1 wherein it states:

> ### *Program Overview*
>
> The fire department shall establish and provide a health-related fitness program (HRFP) that enables members to develop and maintain a level of health and fitness to safely perform their assigned functions.

The occupational health and safety program provides direction on performing assigned functions in a safe manner. The HRFP allows members to enhance and maintain their optimum level of health and fitness throughout their tenure with the fire department.

Education, one provision of an HRFP, allows a means for improving health and fitness throughout the organization. The organization needs to provide the recognition and support to ensure the promotion and success of this process. Health and fitness must become a value within the organization, much like safety is a value.

Combining the HRFP with a proactive occupational safety and health program provides a fire department with a quality health and safety program for its members. It is suggested that WFS review the 14 essential job tasks from NFPA 1582 as they pertain to their recruitment and testing process and seek options for offering personnel the ability to exercise and maintain fitness levels as explained in NFPA 1583.

3.8.1 Cancer Prevention

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

It is suggested that WFS begin work on a cancer prevention program. This may include items such as, but not limited to:

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

The fire stations are not equipped with diesel exhaust extraction systems to reduce exposure to vehicle exhaust. Diesel exhaust has been contributed to health issues when people are exposed to it over long duration. Having these systems in the station is a positive feature towards cancer prevention, greatly reducing the health concern.

Cancer prevention may begin at the scene of a structure fire. The bunker gear becomes laden with contaminants, smoke, and off-gas for some time after a fire. Guaranteeing decontamination of the firefighters at the scene of the fire and further prohibiting wearing dirty gear back to the station or transporting it in the cab of the truck, are preliminary steps for cancer prevention. The Department should also invest in some specialized bio-degradable bags for transporting the contaminated bunker gear back to the station as opposed to using regular garbage bags.

In addition to the contamination of bunker gear, a firefighter's clothing may also contain cancerous contaminants. The hygiene and decontamination program should further address the firefighter's personal clothing or uniform worn in the fire. This may necessitate firefighters packing extra clothing in their personal vehicle, available for them to change into after they have a shower at the station. This contaminated clothing should also be washed at the fire station (with the extractor) and not

taken to the personal residence to be washed as they are then introducing the contaminants to members of their family.

A fire department exposure report should be completed each time a firefighter is exposed to the products of combustion.

3.8.2 Mental Well Being

Like law enforcement, paramedics, and military personnel, firefighters are regularly exposed to critical incidents. A critical incident can be described as:

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

Being regularly exposed to horrific events can lead to critical incident stress. Critical incident stress can best be described as a normal reaction to an abnormal traumatic incident.[13] Exposures to critical incidents can impact firefighters later in life. It is critical to have a formal record of critical incidents to assist a firefighter for a workplace injury if they are struggling due to post-traumatic stress disorder (PTSD).

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

A mental health well-being plan should include:

- An introduction about the plan
- Goals and objectives
- Prevention and education focus areas

[13] Lifesaving Society Ontario, "Critical Incident Stress," Accessed December 7, 2023, https://www.lifesavingsociety.com/media/265272/criticalincidentstress-july2017.pdf

- Screening and initial intervention focus areas
- Support, WSIB claims management, recovery, and return to work focus areas
- An overview of PTSD, risk factors, signs, and symptoms
- Legal requirements of the City under the OH&S Regulations
- Organizational PTSD practices (promoting good mental health)
- Organizational anti-stigma practices
- Roles and responsibilities for prevention, intervention, recovery, and return to work.
- Training on awareness and anti-stigma, recognising the signs and symptoms and responding to signs of PTSD, and post-exposure education and awareness.
- Develop a handbook that identifies what PTSD is, and signs and symptoms for family members to reference which also includes agencies, EAP program, or peer support groups that may be of assistance.
- Consider initiating a chaplaincy program for the department as another form of support for members and their families, not only for situations involving PTSD, but everyday life and the situations that may arise.

3.9 Recruitment and Retention of Paid-on-Call Firefighters

Recruitment and retention of POC firefighters is becoming more of a challenge within the fire service with the increased training that must be committed to annually and the subsequent staff turnover. As with many paid-on-call fire departments, the daytime hours from Monday to Friday are the greatest challenge for paid-on-call response as many firefighters are either at their primary occupation, school, or taking care of family. In some instances, members have had to leave the department to better tend to their other personal obligations.

Due to health and safety regulations, training of personnel, especially in high-risk careers, is becoming a mandatory expectation. Fire departments will need to conduct a full evaluation of their present training programs and implement necessary improvements to meet the new training and certification expectations. This should be a matter for regular business to ensure the proper training and safety of those who risk their lives working in dangerous environments. This increase in training will however add to recruitment requirements, along with the retention of present POC members.

Retention Issues

Some of the leading reasons why people stop volunteering include the following[14]:

- No time to volunteer
- Conflicts within the organization
- Organizational leadership created an adverse atmosphere
- Too much training required
- Poor attitude of existing personnel towards newcomers
- Criticism received from officers/ senior members
- Lack of camaraderie

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

The issue of retention has been identified as a challenge with just about every volunteer/POC fire service in Canada.

Note: *the previously listed items are not a direct reflection on the status of the WFS; they have only been listed for consideration in the department's recruitment and retention initiatives.*

Opportunities to increase retention may include:

- Family nights at the fire station that would include a movie and activities for the children.
- Assign a seasoned member to mentor each rookie when a new member joins the department.
- Conduct a firefighter appreciation events (e.g., dinner, barbeque) where members are recognised by council for their long-term, outstanding service, or something exceptional they did at a call.
- Council take time to acknowledge the employers of the firefighters for permitting their participation in the fire department and/or permitting them to leave work to attend fire calls.
- Survey other fire services to compare pay rates and adjust the honorarium accordingly.
- Implement a service recognition pay incentive. This might include paying extra in the form of

[14] The Volunteer Firefighter's Association, "Top 10 reasons why volunteers leave," Accessed December 5, 2023, https://volunteerfirefighters.org.au/top-10-reasons-volunteers-leave

a 5 to 10% pay increase for every 5 years they have been on the department; this would prevent the loss of years of experience.

- Performance pay for individuals that achieve high percentages of attendance at training sessions and fire calls.
- Offer benefit packages as many may not have benefits at their primary place of employment (some may be self-employed). Such packages could include basic dental, drug, and eyewear coverage.
- Purchase a wellness benefit package for the firefighters including mental, financial, and family counseling. Engage in treating PTSD, which is a common illness among fire responders.
- Offer a RRSP/pension savings plan with contributions from the municipality after they have been a member of the department for a predetermined length of time.
- Provide excellent training opportunities to encourage retention of members of the fire department. Make the training sessions fun and memorable.
- Recognize and support those who want to attend regional courses, which sometimes requires firefighters to use vacation time from their full-time employers. In other instances, personnel may not have vacation time at their primary vocation and may even have to book off time from work, unpaid, to attend training sessions.
- The implementation of an "on call or platoon" program that would pay a week or weekend stipend to the paid-on-call firefighters who commit to being available by signing up for weekdays and/or weekends.
- Education assistance programs to support staff in their professional development.
- Maintain and improve morale by providing modern trucks, equipment, and stations.
- Provide strong leadership that focusses on the Mission, Vision and Values of the department while resolving conflict resolution in a timely manner.
- Conduct exit interviews with those that leave the department to understand their reasons for leaving. While such reasons may be simple, there could be a deep-rooted issue that administration was unaware of such as taunting, bullying, harassment, estrangement, etc.
- Foster the history of each fire station by creating displays of pictures of past members, events, and apparatus, to instill a sense of pride of departmental growth.

The WFS is already implementing some of these suggestions. As such, they should be commended for their retention efforts. This list is simply intended for the Fire Chief to review and confirm what is being done and what may still be required. While some of these suggestions may imply an expense, there is value in retaining personnel, which saves on the ongoing training of new firefighters.

The Canadian Association of Fire Chiefs (CAFC) have published a program – "Answer the Call" – that is available on their website www.answerthecall.ca. The program consists of key resources that departments across Canada can use to help recruit and retain firefighters in their communities.

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

It costs the city a large sum of money to train and equip new firefighters, therefore it is important that ongoing support to retain and maintain their investment is continued.

3.10 Full-Time Firefighters

Although EMG has noted the ongoing and even elevated utilization of the present complement of the WFS full-time firefighters, it is worth noting that having these value-added staff help to ensure a strong and effective daytime response to the community in support of the paid-on-call firefighters.

Most volunteer and paid-on-call fire departments have identified that their greatest challenge is with daytime responses because most volunteers/POCs are committed to their daytime jobs and/or other family related matters. Therefore, having this full-time response capability during the daytime/weekdays is truly a valuable addition to the WFS and should be kept in place.

Section 3: Recommendations

Rec #	Recommendation	Estimated Cost	Suggested Implementation Timelines	Rationale
4	That a full accounting of time spent on administrative duties to identify when the addition of a part-time or full-time administration person may be needed. *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Staff time for the initial review	Immediate (0-1 years) ongoing	Although the administrative division would benefit from the inclusion of even a part-time administrative assistant, it is understood that the inclusion of the full-time response component has provided a greater overall benefit to the department and the community. However, the administrative duties and related records management needs should not be overlooked.

Rec #	Recommendation	Estimated Cost	Suggested Implementation Timelines	Rationale
5	WFS expand and formalize its Public Education activities by identifying and appointing two part-time public education officers (one in each of its two stations) from within their existing (paid-on-call) staff complement to work collaboratively with the fire chief in developing a comprehensive fire safety education program for the community. *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Staff time and cost (wage adjustment) for related training and certification	Immediate to Short-term (0-3 years) ongoing	The two "new" public educators should work collaboratively and with dedicated budget and programming expectations to more fully develop and deliver local programming, notably in the area of smoke alarm awareness, home escape planning, and CO alarm awareness, along with specific fire cause prevention messaging. As the community grows, transitioning the public education role to a dedicated full-time position should be considered – likely long-term horizon.

Rec #	Recommendation	Estimated Cost	Suggested Implementation Timelines	Rationale
6	That the Wetaskiwin Fire Service continue to invest in its fire cause and determination program by developing a continuing education program for additional qualified staff members that includes training, attendance at subject-focused seminars, and membership in the CAFI and IAAI, such that the number of NFPA 1033 qualified investigators be increased.	Staff time and cost (+/- $2000 annually) for related training and certification	Short-term (1-3 years)	Having additional fire department members qualified in fire investigations will augment support for the existing staff conducting these activities while creating a higher level of origin and cause awareness throughout the Department. Alternately, the Department could consider formalising an agreement with neighbouring fire departments who have the requisite capabilities.

Rec #	Recommendation	Estimated Cost	Suggested Implementation Timelines	Rationale
7	WFS further develop its capacity and capabilities respecting Fire Code and Enforcement activities by identifying and appointing a part-time Fire Inspector (FPO) who is fully trained and certified (or obtains certification within a reasonable time frame) to the NFPA 1031 Level II standard. *This can also be accomplished by qualifying one of the full-time firefighters to this level of capability.* *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Minimal cost if utilizing present full-time firefighter. *or* Approximate initial salary cost of $60,000 to $90,000 per year	Short- to Mid-term (1-6 years)	By creating a dedicated position of Fire Inspector, a more consistent level of inspections and code enforcement can be obtained reducing risk exposure for the city due to potential errors or omissions.

Rec #	Recommendation	Estimated Cost	Suggested Implementation Timelines	Rationale
8	WFS further develop its capacity and capabilities respecting firefighter training and certification by identifying and appointing a full-time Training Officer who is fully qualified and certified (or obtains certification within a reasonable time frame) to the NFPA 1041 Level II standard. • This can also be accomplished by starting the position part-time with evolution to full-time. • There is also the possible option of qualifying one of the full-time firefighters to this level of capability. *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Minimal cost if utilizing present full-time firefighter. *or* Approximate initial cost of $60,000 to $90,000 per year	Short- to Mid-term (1-6 years)	By creating the full-time Training Officer position, a more consistent level of training and records management can be obtained.

Rec #	Recommendation	Estimated Cost	Suggested Implementation Timelines	Rationale
9	All WFS Instructors conducting live fire training be competent in NFPA 1403.	$+/-1,500 per student plus travel, accommodations, and staff time	For Future Consideration as required.	Instructor certification to the NFPA 1403 Live Fire Instructor Standard will promote safe training evolutions while enhancing learning opportunities for students. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.
10	That WFS adopt NFPA 1402 *Standard for Fire Service Training Facilities* to ensure its training facility is meeting an industry standard.	Staff time to research the standard	For Future Consideration as required	Implementing the NFPA 1402 Standard will assist in ensuring the design, construction, repair, and maintenance of the training facility aligns with industry best practice, reducing the potential of liability. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.

Rec #	Recommendation	Estimated Cost	Suggested Implementation Timelines	Rationale
11	Adopt NFPA 1403 *Standard for Live Fire Training* to ensure safety of all personnel taking the training.	Staff time to research the standard and develop SOP's/Policies	For Future Consideration as required	Implementing the NFPA 1403 Standard will assist in ensuring industry recommended processes are in place and followed to ensure the safety of all users. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.
12	Develop a budget for the future upgrading and/or replacement of training props for the Fire Service Training Facility.	Staff time to determine costs and create formula/ replacement schedule	For Future Consideration as required	Implementing a dedicated training facility replacement plan for all training props will aid in ensuring funding is available to replace damaged or worn-out equipment in a timely manner. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.

Rec #	Recommendation	Estimated Cost	Suggested Implementation Timelines	Rationale
13	That WFS develop a pool of trained Duty Officers to provide after-hours administration and response support.	Training costs (if required) call out fees/wages. The development of an on-call stipend for Duty Officers may cost $5,000 - $8,000 / year	Short-term (1-3 years)	Presently, the Fire Chief and Deputy Chief are available 24/7 for support as needed. This does not allow for any "scheduled" time off. The Duty Officers concept would allow more flexibility for having on-call senior officer availability as needed. This would also help to provide more of a work-life balance for the Fire Chief and Deputy Chief, by allowing for scheduled time off.

Rec #	Recommendation	Estimated Cost	Suggested Implementation Timelines	Rationale
14	Create position/ job descriptions for each position within the WFS that are not presently covered. • This would include Training Officer, Fire Prevention Officer and Fire and Life Safety Educator. • And included levels of training/certification required. *Note: presently the three full time firefighters are assisting the department with these duties. However, more defined job descriptions for the noted positions/duties are still required.*	Staff time of Fire Service and Human Resource personnel	Short term (1-3 years)	To aid in staff development and succession planning, additional job descriptions for each position within the WFS should be developed to help identify promotional requirements. These descriptions should include minimum training levels to help those aspiring to new positions to identify requirements and expectations of the positions.
15	To support the retention of the paid-on-call firefighters, a full review of their compensation (pay per hour), along with pay incentives for those taking on more duties and responsibilities, needs to be conducted (based on the chart supplied within the section).	Depending on the review outcome	Immediate to Short-term (0-3 years) ongoing	To ensure the longevity of the POC firefighters, a full review of pay and incentives should be conducted to ensure that the city is in line with what other similar communities are doing.

Rec #	Recommendation	Estimated Cost	Suggested Implementation Timelines	Rationale
16	That the fire service should not only keep the full-time firefighters in place; they should also consider enhancing opportunities in advancing the value of such a component for community fire safety.	Ongoing budgeting of the full-time firefighters (as noted in the 2023 budget)	Ongoing	The utilization of the full-time complement of firefighters is providing the City of Wetaskiwin with a more efficient and effective response component during the weekday operations (in support of the paid-on-call firefighters). Further utilization of these full-time firefighters to assist with fire prevention, public education, training, equipment checks, and maintenance is a good investment in staff. *This investment of having the three full time personnel can be seen by the additional notes added to several of the recommendations, such as #4, 5, 7, 8, 14, 16 and 26.*

SECTION 4

Facilities, Vehicles, Equipment & Water Supply

SECTION 4: FACILITIES, VEHICLES, EQUIPMENT & WATER SUPPLY

4.1 Fire Station Review

A review of the existing fire stations was conducted by EMG and will be addressed in this section. The walkthrough of the fire stations was a visual inspection; no destructive testing or engineering assessment was conducted.

Fire stations should be positioned to offer the most efficient and effective response to the community they serve. Fire station location depends on many factors such as key risks within the response zone, future growth of the community, and the response team composition (full-time vs. POC firefighters). Another consideration is the geographical layout of the community that can include natural barriers or divides, such as water, that may make it necessary to have some stations located within proximity of each other.

Distance and travel time may be primary considerations; however, if a basic expectation of response time is set by the community's decision makers, then a more realistic level of service and fire station location criteria can be identified.

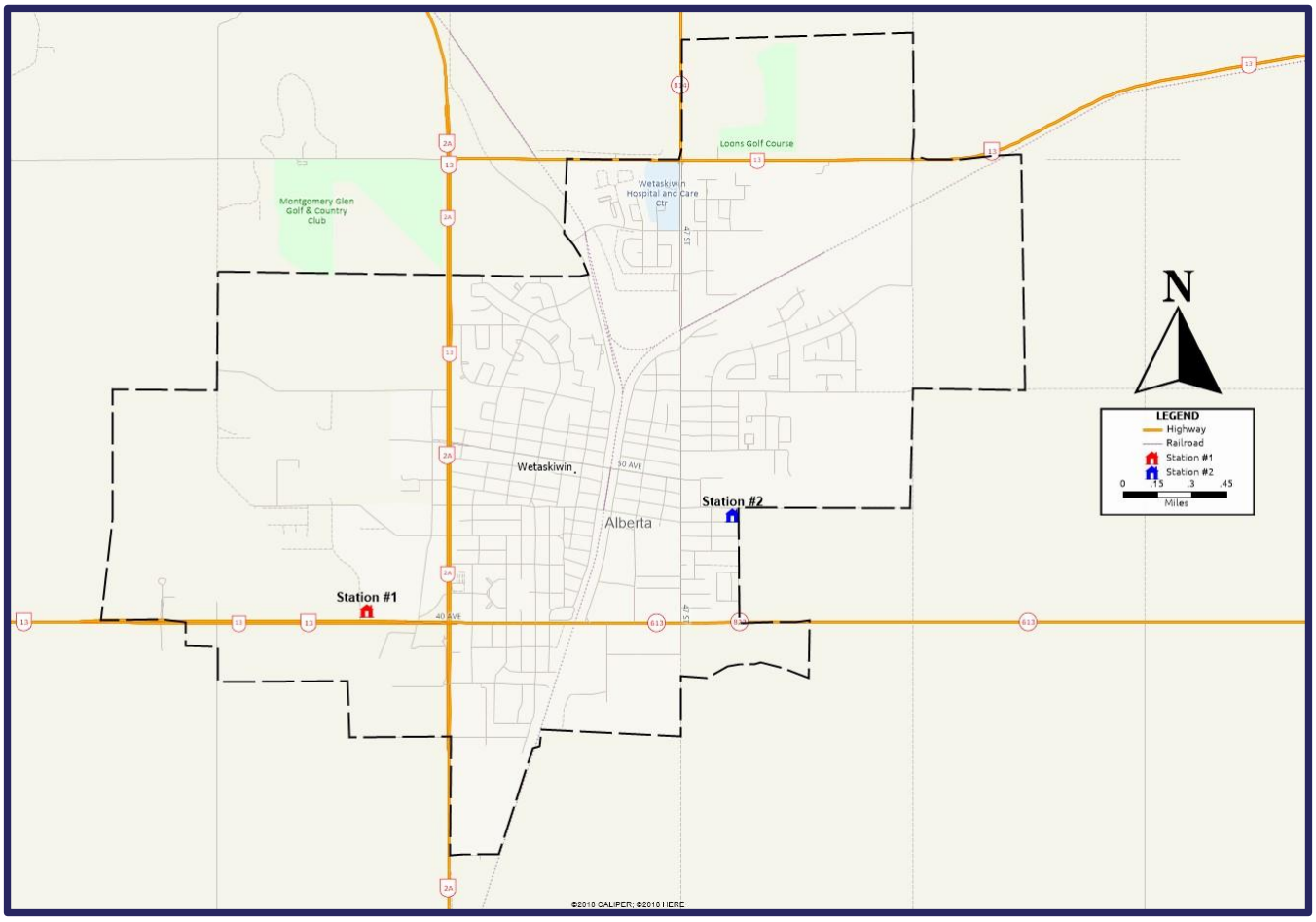
4.2 Fire Station Location and Response Capabilities

The WFS responds to calls for assistance from two fire stations. Both stations are relatively new, built in 2007, and similar in design. Relative to the size of the city, both fire stations can respond to any part of the city within 14 minutes in compliance with NFPA 1720 Standard for Volunteer Fire Departments.

The key challenge, however, is the inconsistent availability of the POC firefighters, where other personal commitments can create attendance conflicts. Even though these firefighters are noted as paid-on-call personnel, they are not actually scheduled for regular duty shifts (at the fire station). As such, they do in fact volunteer to respond when available.

To ensure a consistent and reliable response ability, the WFS has employed a daytime contingent of full-time firefighters. This not only ensures a proper response to calls, but also provides a consistent level of support.

FIGURES #11: LOCATION OF THE FIRE STATIONS



4.1.1 Wetaskiwin Fire Stations

WFS has two fire stations; Station 1 is the main fire station with administrative offices and is located at 5940-40 Avenue. This station has a complement of 13 POC members with four fire apparatus and three command trucks.

Fire Station 2 is located at 4710-45 Street with 15 POC members and four apparatus.

Notes:

- *The station reviews in this report are general in nature. If more in-depth structural analysis is desired by the city, a comprehensive station/facility review should be undertaken.*
- *Any health and safety related items have been bolded and italicized.*
- *A further overview of general health and safety related issues is also included at the end of this station review section.*

Fire Station #1 – Headquarters

Fire station #1 is a single storey building that has three bays for fire apparatus. This is a drive-through station, which helps to reduce vehicle and building damage caused by backing accidents. The fire chief, deputy fire chief, and three full-time firefighters (captain and two firefighters) work out of this station.

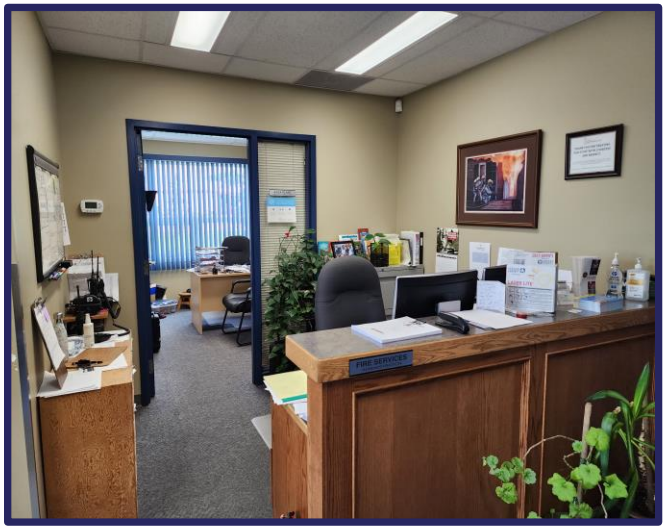
Apparatus Bays


RESCUE
ONE


WETASKIWIN
FIRE

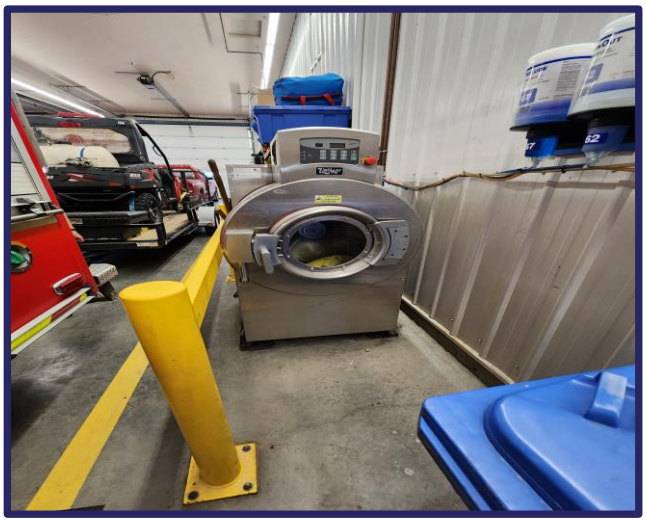

WETASKIWIN
FIRE
SERVICES

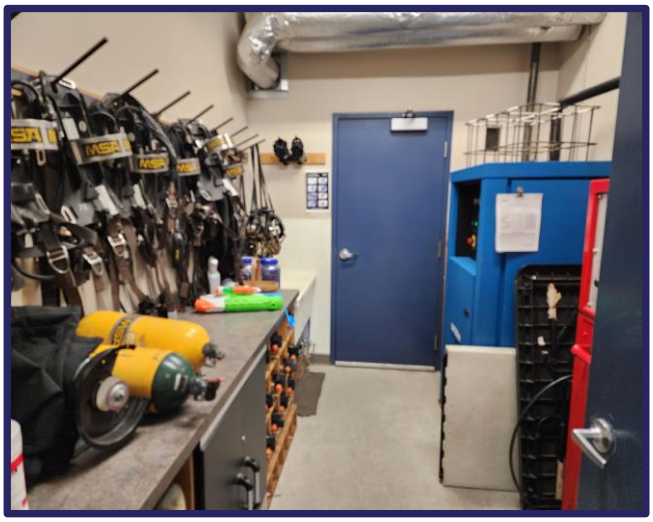
Training and Office Areas



Washroom and Shower Facilities

Bunker Gear Extractor (washing) Unit and SCBA Filling Station





Observations

Overall, the station was found to be in good condition, with room for vehicle and equipment storage.

Concerns

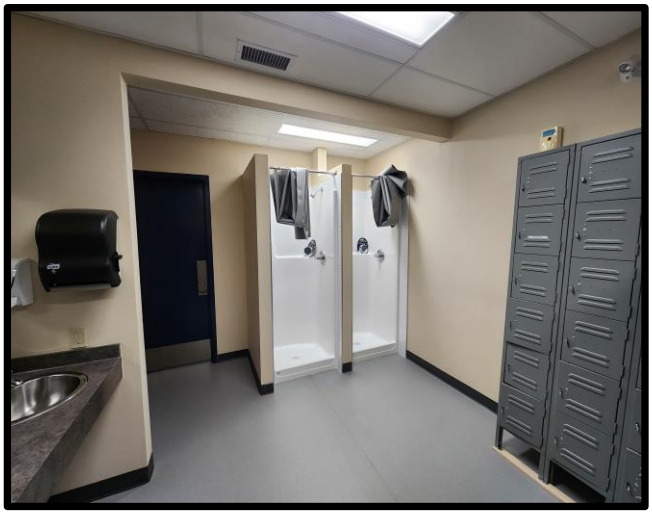
- Firefighting gear is exposed to exhaust contamination.
- There is no diesel exhaust removal system in the station.
- No emergency backup power for station.

Fire Station #2

Station #2 is a two bay station with drive-through capabilitilties.

Apparatus Bays

Washroom area with Shower



Office Area & Meeting and Training Room

Observations

The station was found to be in good condition, with room for vehicle and equipment storage. The washrooms have shower facilities for proper cleaning.

Concerns

- Firefighting gear exposed to exhaust contamination.
- There is no diesel exhaust removal system in the station.
- No emergency backup power for station.

4.3 Fire Apparatus - New and Replacement Schedules

Reliability of fire apparatus is critical to the successful operation of a fire service. Over the long-term, delaying the replacement of a vehicle is inadvisable as it will add to the overall maintenance costs of the apparatus and can influence insurance costs based on the emergency service's Fire FUS rating.

The WFS is well-equipped with pumper trucks, tankers, and support vehicles required for primary response to calls within the city. There does not appear to be a replacement plan in place. This is something that should be implemented, replacing the vehicles on a 15-20-year cycle, to ensure a dependable fleet.

4.3.1 Wetaskiwin Vehicle Inventory

Station Vehicle Inventory			
Engine 4	2008	Pierce Engine	City Unit
Rescue 1	2019	Spartan Metro Star	City/County unit
Engine 5	2019	Acres	County Unit
Tender 9	2016	Rosenbauer	County Unit
Command 1	2016	Ford Expedition	City Unit
Command 2	2013	Ford F-150	City Unit
Command 3	2011	Dodge 1500	City Unit
Engine 3	2005	American LaFrance	City Unit
Engine7	2011	Fort Garry	County Unit
Ladder 1	1997	E-One	City Unit
Tender 8	2001	Peterbilt	County Unit

As can be seen, the fleet is relatively young, with the Ladder 1 and Tender 8 being the only vehicles needing replacement (based on the FUS recommendations).

4.3.2 FUS – Vehicle Replacement Recommendations

When assessing an emergency service's ability to respond and meet the needs of the community, the FUS considers the age of a fire truck as one of its guidelines.

Based on the population of Wetaskiwin, the community falls within the "medium sized communities." This allows for a 15-year replacement cycle for their First Line Duty fire trucks, and a 20-year replacement cycle for their 2nd Line Duty fire trucks.

TABLE #3: FUS VEHICLE REPLACEMENT RECOMMENDATIONS[15]

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

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

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

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

- a populated area (or multiple areas) with a density of at least 400 people per square kilometre; AND

[15] The Fire Underwriters Survey, "TECHNICAL BULLETIN, FIRE UNDERWRITERS SURVEY™, A Service to Insurers and Municipalities, INSURANCE GRADING RECOGNITION OF USED OR REBUILT FIRE APPARATUS," accessed January 31, 2022, file:///C:/Users/EmergencyLT/Downloads/FUS-TechnicalBulletin-InsuranceGradingRecognitionofUsedorRebuilt%20(1).pdf

- a total population of 100,000 or greater.

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

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

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

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

The FUS definition of *First Line Duty, 2nd Line Duty*, and *Reserve* is:

- 1st line is the first fire truck utilized for response at the fire station.
- 2nd line is the next truck to be used if the 1st line unit is tied up at a call.
- Reserve is the vehicle kept in the fleet to be put into service if a 1st line or 2nd line vehicle is out of service.

The FUS is reviewed by insurance companies. Provided that the emergency services adhere to the recommended replacement timelines through an approved capital replacement schedule, the department will retain its fire rating for vehicle replacement. By ensuring that the vehicles are being replaced on a regular schedule, Wetaskiwin would be demonstrating due diligence towards ensuring a dependable response fleet for the emergency services and the community it serves.

4.3.3 NFPA – Vehicle Replacement Recommendations

The NFPA 1911, *Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus* also supports a regular replacement schedule of fire vehicles. This standard includes guidance on retirement criteria for fire apparatus. NFPA 1911 recommends that all front-run vehicles are replaced on a 15 to 20-year cycle, depending on the community size.

For emergency services that are considering refurbishing their vehicles to extend the in-service life, reference can be made to the NFPA 1912, *Standard for Apparatus Refurbishing*. It should be noted that although the FUS do take refurbishment of vehicles into consideration, no credit rating is assigned to vehicles over 30 years of age.

4.3.4 Spare Fire Vehicles

Based on the FUS recommendations, there should be a spare pumper truck for every eight vehicles. If a department has eight (or less) pumper trucks, it should have a spare pumper truck in its fleet. If the

department has more than eight pumper trucks, then it should have two spare trucks in its fleet. Presently, WFS does have spare pumper trucks in its fleet. It would appear that WFS does meet this requirement of the FUS.

The key to ensure reliable spare apparatus is to ensure that the replacement vehicle is not older than the FUS recommended age as noted in Table #3.

Relative to exceeding recommended replacement timelines, FUS stipulates the following exception, (found in Table #3):

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

4.4 Maintenance

WFS does not have its own mechanical division; all work is handled by a third-party shop. This is quite common for smaller communities. Based on feedback received from the fire chief, this arrangement is working well for WFS.

4.5 Bunker Gear

Every year, firefighters in ever-increasing numbers are being diagnosed with cancer. A contributing factor to their illness has been proven to be the contaminants that adhere to the structural firefighting gear during fire fighting operations. After a fire, the structural firefighting gear should be packaged and sent for cleaning to reduce this risk. The WFS fire stations do have a commercial extraction washing machine made specifically for this type of cleaning. Any contaminated gear can be cleaned and inspected before returning to the Department.

While structural firefighting gear is being cleaned, the firefighter requires a replacement set so they do not go without clean gear to wear. Ensuring that the cleaning of gear is a high priority after fires, and that firefighters have access to properly fitting bunker gear during the cleaning process, will assist the Department in meeting its decontamination and hygiene program. The WFS does not presently issue a second set of bunker gear to each firefighter, but it does have an inventory of spare gear that can be utilized for the short-term, until the original gear is returned from cleaning and inspection.

When used for interior structural firefighting, bunker gear has a life span of 10 years as stated in NFPA 1851, *Standard on Selection, Care and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*. WFS is following this replacement standard if the gear is compromised in any way.

4.6 New Technologies

Technology within the fire service is ever evolving, with new pieces of equipment being added to the resources used by an incident commander. One such technology which has proven to be a valuable tool is the use of drones (Transport Canada refers to these as Remotely Piloted Aircraft Systems (RPAS). Police services have been using them for some time to locate missing persons or document accidents and crime scenes.

The use of drones in the fire service is a growing trend as a multi-purpose tool that can assist with enhancement of search and rescue functions and be used in pre-incident planning. Drones can cover a lot of ground thus allowing valuable fire services personnel to be utilized elsewhere. They have proven beneficial for HAZMT incidents, forest fires, and large-scale emergencies as the drone can be quickly deployed and give the Incident Commander a live view of the incident. The reduction of risk to firefighting personnel is a significant benefit of drone technology, along with the live view capabilities that provides invaluable information to the Incident Commander.

Drone pilots must follow the Canadian Aviation Regulations (CARs) Part IX-Remotely Piloted Aircraft Systems which contain the rules for drones up to 25 kilograms. Advanced operations include flying in controlled airspace, flying over bystanders, or flying within 30 meters of bystanders.

New technologies are being developed each year to protect the firefighters; these include the use of robotics to fight fires, which are being actively used in Europe and Asia.

New self-contained breathing apparatus (SCBA) has built-in telemetry systems that, like some portable radios, identify the location of the firefighter. New technology SCBAs can transmit GPS data, measure the amount of air in the SCBA cylinder, monitor the heart rate and level of exertion the firefighter is being exposed to, as well as body temperature.

As technology progresses, it is important to monitor the benefits and opportunities to integrate these devices into the fire service.

4.5 Water Supply

4.5.1 Hydrants

There are approximately 348 fire hydrants in the city. The City of Wetaskiwin 2020 Water Master Plan Update identified areas of the city that required upgrading to improve water flow and supply:

> *"A number of locations within Wetaskiwin did not fully satisfy the Peak Day plus Fire Flow criteria. Although these locations may not fully meet the target fire flow criteria due to a reduced flowrate, there will be water available for fighting fire. Some areas which did not meet the criteria include:*

- *Southeast Industrial Area;*
- *Cul-de-sacs;*
- *Dead end mains;*
- *Long blocks without intermediate looping; and*
- *High fire flow properties."*[16]

The 2020 Water Master Plan report also recommended that all fire hydrants should be inspected and tested annually or as required based on the use of the hydrant. To add to this, EMG is also recommending that NFPA 24, *Standard for the Installation of Private Fire Service Mains Their Appurtenances,* and NFPA 291, *Recommended Practises of Fire Flow Testing and Marking of Hydrants,* are followed. The city should ensure hydrants are flushed at least every other year. The failure of a hydrant to operate as required may present catastrophic results and expose the city to the risk of litigation.

When a fire hydrant is out of service, repairs must be handled expeditiously, notifying the fire department of such breakages and the anticipated time to complete the required repairs. These steps are paramount to ensure that no out-of-service hydrant is utilized by the fire department.

Based on the 2020 Water Master Plan report EMG is in support of the recommendations contained within that report as it maintains the ongoing need for a reliable water supply for firefighting purposes.

4.5.2 Superior Tanker Shuttle Accreditation

Many fire services have attained their Superior Tanker Shuttle Accreditation, and in doing so, FUS reduces insurance rates within that community, representing savings to the residents. The Tanker Shuttle Accreditation demonstrates that the fire department can aggressively attack rural fires, maintaining a consistently large volume of water flow in areas without fire hydrants. Part of the process is ensuring tankers have adequate, nearby locations to refill using regular hydrants, dry hydrants, cisterns, streams, or the lake (preferably with a dry hydrant).

Achievement of this accreditation represents the equivalent of having hydrants for water supply, even where hydrants do not exist. The WFS should also reference NFPA 1231, *Standard on Water Supplies for Suburban and Rural Fire Fighting,* to see what enhancements can be achieved in their operations.

It is further suggested that the city look at creating either a by-law or guideline to adopt the FUS water supply recommendations. This will demonstrate that the city is meeting a recognized insurance

[16] Associated Engineering, "City of Wetaskiwin Waster Master Plan Update," Accessed November 2, 2023. https://www.wetaskiwin.ca/DocumentCenter/View/6141/Potable-Water-Master-Plan

guideline that could reduce insurance costs for home and building owners. It will also ensure that water supply systems are being standardized to meet fire flow requirements.

Rec #	Recommendation	Estimate Cost	Suggested Implementation Timelines	Rationale
17	Develop a plan to address the noted fire station concerns. • The key concerns are relating to the lack of a diesel exhaust system at each fire station and the need for emergency backup power.	Installation of exhaust system $20,000 -$40,000 per station. Backup generators $15,000 - $40,000 per unit.	Immediate to Short-term (0-3 years)	*Ensuring protection from diesel exhaust fumes will protect the firefighters from this cancer-causing product, which is a health and safety concern.* And having emergency backup power will ensure that these emergency response facilities can operate during large power outages.
18	Develop a vehicle replacement plan to ensure that all fire vehicles are replaced on a scheduled basis.	Cost of a fire truck can range $800,000 for an Engine to $2 million for an aerial.	Short- to Mid-term (1-6 years)	A replacement plan will ensure a healthy and dependable fleet of emergency response vehicles to the community.

SECTION 5

Emergency Management

SECTION 5: EMERGENCY MANAGEMENT

5.1 Emergency Management Program

Under the guidance of the Province of Alberta's *MGA*, the City of Wetaskiwin is responsible for ensuring the safety and wellbeing of their citizens; this includes instances of local or regional emergencies and disasters. Further to the *MGA*, the *Emergency Management Act (EMA)* and the Local Authority Emergency Management Regulation (LAEMR) outline the powers and authorities of each municipality, and steps that must be taken to plan and prepare for the safety of their community. Currently, the responsibility of this program resides with the Director of Emergency Management (DEM), the Fire Chief.

In efforts to meet this responsibility, the City of Wetaskiwin has created a Municipal Emergency Plan (MEP). This plan is intended to be used as a guiding document during an emergency, disaster, or training evolution. It is a requirement that each municipality in the Province of Alberta reviews their MEP annually. In addition to internal reviews, representatives from the Alberta Emergency Management Agency (AEMA) must also conduct an audit of the plan to verify that it meets provincial requirements, industry best practices, as well as the needs of staff and the community.

EMG was supplied with the recent 2022 audit of the City of Wetaskiwin's MEP conducted by the AEMA. For the most part, the city was in a good position with its MEP. However, the audit did recommend ongoing ICS training, along with the need for a tabletop exercise and a clearer identification of EM staff for the ICS positions to ensure that city staff are trained and prepared for a possible emergency. As noted in the following review conducted by EMG, these AEMA recommendations are supported, along with some additional suggestions for improvement in the city's emergency management program.

5.2 Emergency Management By-law

As a requirement of the LAEMR, the City of Wetaskiwin passed *By-law 2010-22, Emergency Management By-law*, on the 10th of January 2022. Meeting the requirement of the LAEMR, this by-law outlines the creation of Wetaskiwin's Emergency Advisory Committee and Emergency Management Agency, while clearly identifying the roles and responsibilities of each. Further, the Emergency Management By-law identifies the steps required when declaring a Station of Local Emergency (SOLE) as well as the role and duty of the DEM and Chief Administrative Officer (CAO).

After review, EMG notes that the City of Wetaskiwin's Emergency Management By-law meets current provincial requirements.

5.3 Municipal Emergency Plan

MEPs are created by conducting a Community Self Assessment and CRA, which assist in the development of a robust plan. Each community, while creating or reviewing their plan, must ensure that the targets of preservation of life, property, environment, and the mitigation of the event, are highlighted and that these targets are achieved by focusing on the prevention, preparedness, response, and recovery efforts from an emergency or disaster.

As outlined in the LAEMR, an emergency plan must include:

- a description of the administration of the local authority's emergency management program.
- the procedures for implementing the emergency plan during an emergency or exercise response.
- the local authority's plan for preparedness, response, and recovery activities.
- a hazard, risk, and vulnerability assessment.
- emergency management program exercises that the local authority will engage in.
- the local authority emergency management agency's plan for regular review and maintenance of the local authority's emergency plan.
- the local authority emergency management agency's plan for the review and maintenance of the local authority's emergency plan after an exercise, emergency, or disaster.
- how the command, control, and coordination system will be used by the local authority's emergency management agency.
- the assignment of responsibilities to local authority employees and elected officials, by position, respecting the implementation of the local authority's emergency plan
- a training plan for staff assigned with responsibilities under the local authority's emergency plan.
- the mechanisms that will be used to prepare and maintain an emergency management staff contact list for employees and elected officials who have been assigned responsibilities.
- the local authority's plan for communications, public alerts, and notifications during exercises, emergencies, and disasters.
- the local authority's plan for providing emergency social services during an emergency or disaster.

EMG has conducted a review of the MEP provided for review by the City of Wetaskiwin's and noted the following:

- The plan received a complete update in 2018. Since that time, the plan has been reviewed twice: once in 2019 and 2021. As outlined in Section 5(1) of the LAEMR the local authority's Emergency Management Agency must review the MEP at least once per year. For ease of reference, each review should be documented within the plan while providing details regarding any updates that were made.
- The plan contains an Updating Procedures and Plan Maintenance section. EMG notes that although this section meets the intent of the LAEMR, is should also be identified within this section that updates may also occur during the annual review of the MEP, and not only in conjunction with a major exercise.
- The plan captures the names and information of key contacts, as well as businesses, municipal partners, and essential services very well. As a part of the annual review of the plan, care must be given to reviewing all contact information. Some of the contacts currently listed in the plan need to be updated, as they have moved on from the roles identified within the plan or from the organizations that they are associated with.
- The plan identifies that as a minimum, one exercise per calendar year will be conducted to test and evaluate the operation readiness of the MEP. The plan further states that the exercise will be "either a tabletop or one practical exercise per year will be the standard format." EMG applauds the City of Wetaskiwin for identifying this exercise regime; however, to meet the intent of the LAEMR, only one exercise is required every four years with the remaining years, being either discussion or table-top based exercises. Should the City of Wetaskiwin activate their MEP in response to an emergency or disaster, that activation replaces the need for the practical exercise in the four-year cycle. For ease of reference, each tabletop, practical exercise, and activation should be documented within the plan while providing details regarding the scenario that was used.
- Training is essential for any emergency management program. The MEP identifies that staff will be trained in the ICS and the Emergency Coordination Centre (ECC) operations on an ongoing basis. EMG has noted that the MEP lists Basic Emergency Management (BEM), ECC, ICS 100/200/300, and Scribe as training courses for staff. While these targets are essential, it is noted that Municipal Elected Official (MEO) and DEM training is not listed. MEO training for councillors must be completed within 90 days of taking office while DEM training provides education and experience to help Directors and Deputy Directors of Emergency Management perform their duties effectively. When complete, the training records of staff should be recorded following municipal confidentiality policies, while a summary of staff training should be available for review by AEMA Field Officers and during MEP's annual review. For example, the summary should include the number of staff trained to each level of ICS, while not providing individual names.
- It is stated in the MEP that the plan is not intended to contain the individual plans of other municipal departments or agencies. In addition, the Hazard, Risk and Vulnerability Assessment

has been identified in the last section of the plan; however, it is not attached. EMG assumes that all affiliated plans and assessments are up to date, reviewed annually, and available when needed.

Through the course of reviewing the MEP, EMG has observed house-keeping items that require consideration.

- By-law 2010-22 identifies the plan as an Emergency Management Plan while the current plan continues to be identified as an MEP. Alignment of the document title is required to avoid confusion during an activation or exercise.
- By-law 2010-22 provides the definition for an EOC while the MEP refers to this location as the ECC. Consistency in the name of this center is recommended to avoid confusion during an activation or exercise.
- For ease of navigation, the MEP should have page numbers associated to each section within the Table of Contents and throughout the document.

5.4 Emergency Plan Exercise and Training

5.4.1 Emergency Plan Exercise

As required by the Province of Alberta, each MEP must be exercised once per year. Municipalities have the option of conducting a variety of exercise types, however at least once every four years, a significant possible emergency or disaster scenario is selected, and actions are carried out as if the emergency or disaster were occurring without deploying personnel or other resources. Should the City of Wetaskiwin activate their MEP in response to an emergency or disaster, that activation replaces the need for the practical exercise in the four-year cycle.

As a reference, EMG has provided options for the City of Wetaskiwin to consider, when exercising their MEP.

EOC Activation: Planning for a practice activation of the primary and secondary EOC keeps staff orientated to their roles and all staff members that are expected to have a role in the EOC should participate in these practice sessions.

Discussion-Based Exercise: In discussion-based exercises, the primary intent is to have dialogue regarding the emergency plan, procedures, by-laws, and any policies that could impact an emergency. The discussion sessions are low-key, low-pressure, and a great tool for familiarization. The secondary intent of discussion-based exercises is to build confidence through familiarization amongst team players in the application of the plan. These discussion-based exercises are great tools to facilitate the learning process for the staff designated as alternates expected to fill a role in the EOC.

Discussion-based training is also a great way to orientate new staff or existing staff, that have not had a real opportunity to familiarize themselves with the emergency plan or organizational plans, by-laws, procedures, and policies.

Tabletop Exercise: These exercises are low cost with minimal stress, but preparation can require some time to create a scenario that is relevant to the City. A tabletop exercise is generally led by one facilitator depending on the complexity of the scenario. Tabletop exercises are great ways to identify gaps in plans, policies, and procedures in post-exercise discussions. To complete the exercise, an After-Action Report is completed to identify any shortcomings or deficiencies that need to be addressed.

Operations-Based: The primary intent is to deploy personnel and equipment in a drill, functional exercise, or full-scale exercise. The disadvantage of an operations-based exercise is that they require a significant amount of time to plan and prepare for as resources will be required from multiple agencies. Operations-based exercises generally reveal gaps and weaknesses in training, inter-agency communications, resource allocation, and operational procedures. Operations-based exercises include:

- Drills - These are exercises that are intended to evaluate a specific operation. For example, The Wetaskiwin Fire & Emergency Services may conduct a drill for a carbon monoxide leak in a long-term care facility.
- Functional exercises - These exercises can be complex with a high degree of realism and are used to test plans, procedures, and policies in the training scenario, which is at a single site.
- Full-scale exercises - A complex exercise that tests multiple agencies in a single scenario at multiple sites. These exercises are in real-time, highly realistic, and usually stressful for agency personnel participating in the exercise. A full-scale exercise can take from 6-10 months to prepare for and require a significant investment in resources and funds. Several facilitators are required to ensure safety and compliance with the storyline of the exercise. A full-scale exercise is developed with clear objectives to test multiple agencies. Upon completion of the exercise, a hot wash is conducted which is a formal discussion of the involved agencies' performance during the exercise. An After-Action Report and a formal Improvement Plan are prepared and distributed that identify actions required to address and improve performance.

5.4.2 Training

Within their MEP, the City of Wetaskiwin has identified the desired levels of training for municipal staff. These staff often volunteer to participate in this training or, by virtue of position, are required to participate. On occasion, an employee may find themself with elevated levels of anxiety or fear, as the concept of Emergency Management and ICS training may be foreign to them. Instructors, supervisors, and fellow participants should be cognisant of this and work together to ensure that each student is provided a safe environment to learn and test new skills.

Through the AEMA, various educational institutions, and private contractors, there are several emergency management training courses available. Each municipality is required to identify the appropriate number of trained staff and to what level each employee should be trained. When making this decision, consideration to long-term events that have multiple operational periods within a 24-hour period must be given, as this increases the number of required staff to effectively operate an EOC.

- ICS 100: The awareness level training that introduces the participant to IMS topics and concepts.
- ICS 200: The awareness level training that is designed to help people function within the IMS. This level of training provides a greater depth regarding the functional areas and positions in the IMS.
- ICS 300: The level that is directed for supervisory functions and provides exposure to setting objectives, unified command, planning, demobilization, and termination of command. This level is focused on developing skills through practical exercises.
- ICS 400: The level that is directed for supervisory functions and is orientated to developing skills for complex incidents and the coordination of multiple incidents.
- Basic Emergency Management: Intended for individuals who have been identified for an emergency management role in their community. This program provides background on emergency management principles and introduces key partners in emergency management.
- Scribing for Emergency Management: This course prepares emergency management staff for the integral role a scribe plays in high-stress situations where decision-making relies heavily on strong, credible information.
- Municipal Elected Officials: This course is intended for elected officials and must be completed within 90 days of assuming office. Participants will be provided background on emergency management principles and be introduced to other key players in emergency management.
- Director of Emergency Management: This course is designed to review Alberta Emergency Management framework and explain the implication of emergency management legislation for DEMs.

5.5 Emergency and Disaster Aid Agreements

Within Emergency Management, Emergency and Disaster Aid Agreements provide additional supports to a community or region experiencing an emergency or disaster; support may range from equipment and personnel to staff for an EOC.

The authority to enter into such agreements is found within the Province of Albert *MGA, M-26 RSA 2000*. This authority is further supported by the *Emergency Management Act* and the *Local Authorities Emergency Management Regulation*.

Under this authority, the City of Wetaskiwin has entered into several Emergency Management Disaster Service Agreements with surrounding communities. Included are agreements with The Town of Ponoka, City of Camrose and County of Camrose, the Town of Millet and County of Wetaskiwin, and the County of Wetaskiwin, Ermineskin Cree Nation (#138), Lousi Bull Tribe (#439), Montana First Nation (#139), and Samson Cree Nation (#137).

Each of the Emergency and Disaster Aid Agreements entered by the City of Wetaskiwin is a reciprocal agreement that remains in full force until such time as a party to the agreement provides the appropriate notice to terminate the agreement as per the terms set out within.

It is best practice to review all Emergency and Disaster Aid Agreements annually to ensure that each agreement remains current or, that it is adjusted accordingly to meet the changing needs of the region. Further, EMG has noted that each Emergency and Disaster Aid Agreement entered by the City of Wetaskiwin was done prior to the implementation of the LAEMR and the requirement to update municipal Emergency Management By-laws. Although not an immediate priority, consideration may be given to updating each by-law to reflect current regulations and emergency management terminology to ensure consistency throughout all documents.

5.6 Emergency Operation Centre(s) (EOC)

An EOC is a physical location where the coordination of information and resources to support an emergency or disaster normally takes place. In addition, it is a facility that is used to coordinate the response of various agencies and organizations involved in the emergency response while being responsible for ensuring that all necessary resources are available to respond to an emergency, and that they are deployed in an efficient and effective manner.

An EOC is staffed according to the needs of an incident and may operate up to twenty-four hours a day, seven days a week. Staff operating within an EOC are assigned to one of the following groups: Command and General Staff, Operations, Planning, Logistics, or Finance.

Although EOCs may not operate often, they should be maintained in a state of readiness which includes conducting monthly tests of all operating systems and technology. Further, and as a part of the annual MEP review, position kits and supplies should be checked, updated, and verified as necessary, to ensure operational readiness. A record of all monthly and annual checks should be documented in the MEP.

Due to operational requirements, it is recommended that EOCs not be located within a fire station; during an emergency, the fire stations will be busy with firefighters and apparatus coming and going; any extra traffic in the area may impede response times.

EOCs should not be accessible to the public and have security or punch card access. To ensure uninterrupted operations, public access needs to be monitored and controlled. Should it be necessary, contract security personnel may be hired to fulfil this requirement.

In addition to having an uninterrupted back up power supply, EOCs should be designed with a variety of rooms to accommodate both operational and staffing needs. These rooms include but are not limited to:

- Break out rooms for planning, communications, and other working groups
- Elected Official and Media scrum rooms
- A quiet room(s) for staff to use during breaks
- Separate lunch facilities

Partnering with the County of Wetaskiwin, the City of Wetaskiwin's Primary EOC is located outside of City limits, 1.5 miles (2.4 km) west, on Highway 13, while the secondary ECC is located at the West Wetaskiwin Fire Hall. By having two pre-determined EOC locations, should one become inoperable during an emergency or disaster, the city will still be able to coordinate a response to an event from the second location.

Two other points to consider include:

- The City of Wetaskiwin to review the feasibility of acquiring an emergency notification system or expand on a current system used by the Fire Service, to notify employees of an ECC activation.
- Engage with area partners to discuss the concept of a Regional Emergency Management Commission/Partnership, for the City of Wetaskiwin and surrounding communities.
- To assist with the ongoing training and upkeep of the program, the City should hire a .5 FTE Emergency Management Coordinator to oversee the MEP, coordination of exercises, and training.

Section 5: Recommendations

Rec #	Recommendations	Estimated Costs	Suggested implementation Timelines	Rationale
19	That WFS continue to implement the recommendations received from AEMA along with the recommendations provided by EMG, as they relate to the plan	Staff time plus incidental costs that may arise from updating the MEP	Immediate to Short-term (0-3 years) Ongoing	WFS received the results of the AEMA 2022/2023 review of the City's MEP. This review recommended some updates to the plan along with training exercises and continued ICS training. All of this is needed to keep the city in compliance with the Provincial emergency management expectations.
20	The City of Wetaskiwin to review the feasibility of acquiring an emergency notification system or expand on a current system used by the Fire Service, to notify employees of an EOC activation.	Costs associated with the expansion of an existing system or purchase of a new system are unknown.	Mid-Term (4 to 6 years)	The current process to activate staff for an ECC is to call to each person directly. As the first minutes of an emergency or disaster are critical, a faster way to notify staff is required.

Rec #	Recommendations	Estimated Costs	Suggested implementation Timelines	Rationale
21	Develop a four-year plan for the city to exercise the MEP while building staff confidence in responding to and addressing an emergency or disaster.	Staff time plus incidental supplies and resources necessary to facilitate exercises	Short to Mid Term (1 to 6 years)	The LAEMR identifies that a municipality must exercise their MEP each year with one large-scale exercise to be held once every four years.
22	Due to the importance of staff understanding their roles and responsibilities in the EOC, it is recommended that a policy be implemented that identifies ICS 200 as the minimum standard for staff required to be in the EOC with ICS 300 as the goal for all department heads (Section Chiefs). Although some ICS training may be taken online, it is further recommended that ICS 200 and 300 are both delivered in person.	Staff time, course supplies, external instructor costs, travel, and accommodation for out of area training.	Short-term (1 to 3 years)	It is imperative that staff holding Section Chief and Command and General Staff positions, have ICS 300 level of training. By reaching this level, it will also provide consistency to the level of expertise among the members of the ECC.

Rec #	Recommendations	Estimated Costs	Suggested implementation Timelines	Rationale
23	The City of Wetaskiwin engage all Emergency and Disaster Aid Agreement partners to conduct a review of each agreement.	Staff time, travel, and incidental supplies	Mid Term (4 to 6 years)	This review will allow partners to review each agreement for consistency and accuracy, discuss updating each agreement to meet current legislation and terminology as well as discuss the possibility of shared training and exercise opportunities
24	In partnership with the County of Wetaskiwin, complete a review of both the primary and secondary ECCs.	Staff time, travel, and incidentals	Short-term (1 to 3 years)	Consistency and operational readiness between the primary and secondary ECCs are essential.

Rec #	Recommendations	Estimated Costs	Suggested implementation Timelines	Rationale
25	Engage with area partners to discuss the concept of a Regional Emergency Management Commission/Partnership, for the City of Wetaskiwin and surrounding communities.	Staff time, travel, and incidentals.	Long Term (7 to 10years)	Other regions within the province have successfully entered emergency management partnerships. One example is the Grande Prairie Regional Emergency Partnership. These types of partnerships allow for the cost sharing of emergency management programs and for the pooling of resources to respond to and mitigate an event. *Note: Should there be interest among partners, a consultant may be jointly hired to specifically look at the feasibility of a partnership. Some grant funding may be available.*
26	Hire a .5 FTE Emergency Management Coordinator to oversee the MEP, coordination of exercises, and training. *Note: presently the three full time firefighters are assisting the department with these duties. However, a more defined job description/duties for the noted position is still required.*	Estimated at $45,000 per year + employer contributions (22%+/-)	Mid Term (4 to 6 years)	This new position would be focused on ensuring the City of Wetaskiwin's Emergency Management Program is in-line with the requirements of the province, and that it meets the needs of the community.

SECTION 6

Mutual Aid, Automatic Aid and Fire Service Agreements

SECTION 6: MUTUAL AID, AUTOMATIC AID, AND FIRE SERVICE AGREEMENTS

6.1 Mutual Aid Agreements and Fire Service Agreements

Within the fire service, Mutual Aid Agreements are reciprocal arrangements among emergency response agencies to lend assistance across jurisdictional boundaries. The need for mutual aid typically arises from unplanned events that exceeds local resources, such as a large-scale fire or disaster. The authority for a municipality to enter into such an agreement is found within the Province of Alberta *MGA, M-26 RSA 2000*.

A Fire Service Agreement is a continuous formal standing agreement that ensures resources are dispatched from the nearest fire station, regardless of which side of the jurisdictional boundary the incident is on. Often, this type of agreement is for a prescribed area or region and is complemented by pre-identifying resource type and staffing levels that are to be dispatched. This type of agreement may also be referred to as Automatic Aid Agreements.

Mutual Aid and Fire Service Agreements are used to:

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

Both Mutual Aid and Fire Service Agreements are created on the base principal of being mutually beneficial. As such, all agreements should be drafted while keeping the following principles in mind:

- Identification of legal authority
- Definitions
- Mutual indemnification clauses
- Purpose of agreement
- Terms and Termination
- Procedures for requesting and responding to requests for assistance.

- Command and control protocols
- Remuneration
- Dispute resolution

It is best practice to review all Mutual Aid and Response Agreements annually to ensure they remain current and are adjusted accordingly to meet the ever-changing needs of the municipality.

6.2 Mutual Aid

The City of Wetaskiwin is currently a partner in three Mutual Aid Agreements, although it is unclear if the first agreement, signed in 1997 with the City of Leduc, remains valid. The original agreement was initially binding for a period of three years unless extended by mutual agreement. No documentation to support the extension of this agreement was provided to EMG.

It is the recommendation of EMG that a Mutual Aid Agreement with the City of Leduc be revisited. The City of Leduc is an established full-time composite fire service, that may be in a position to provide a timely response with the appropriate apparatus, should there be a need. All City of Leduc firefighting personnel are trained to the NFPA 1001 level 2 standard, while many are also registered Primary Care or Advance Care Paramedics with the Alberta College of Paramedics. This advanced level of training serves as an additional resource during any incident. Considering the age of the agreement provided to EMG for review, it is further recommended that a new, modernized agreement is drafted for consideration between the City of Wetaskiwin and the City of Leduc.

The second Mutual Aid Agreement that the City of Wetaskiwin participates in is a multi-party agreement including Ermineskin Cree Nation (#138), Louis Bull Tribe (#439), Montana First Nation (#139), Samson Cree Nation (#137), and the County of Wetaskiwin. Upon signing this agreement, it was initially valid for a period of three years after which it was identified that it would remain in full force and effect year to year until renegotiated, or the agreement was terminated by a participating party. EMG was not provided documentation demonstrating that the agreement had been renegotiated or terminated; it is assumed that the agreement remains valid today.

This agreement has been in place since 2012 and should be reviewed annually by the Fire Chiefs of each fire service to ensure its accuracy and relevance to the needs of each participant. The effort that goes into maintaining these relationships has a direct benefit to the citizens being served, to protect lives, homes, and infrastructure, and to keep firefighters safe.

The third mutual aid agreement is with the City of Camrose. The original agreement was signed in 1985 and was updated in 2022, which makes this a very recent agreement. The fact that this agreement is so new, not updates are required, but as with all the other agreements, they should be reviewed on an annual basis to ensure that both parties needs are being met.

6.3 Fire Service and Automatic Aid Agreements

Fire Service and Automatic Aid Agreements exist between fire departments and communities when time and resources are a factor in responding to an emergency. Many times, these agreements identify the levels of service, personnel, and equipment that will be dispatched automatically in certain conditions. These agreements may also reference specific geographic areas to which resources will be deployed. Examples of services that may be provided under these types of agreements are responses to structure and wildland fires, motor vehicle collisions, and other identified emergencies that fall within the parameters of the automatic agreement. Oftentimes, these automatic aid agreements involve a reciprocal arrangement between two or more agencies. Typically, fire protection agreements, in contrast, follow this same model in terms of response, however, the arrangement is often weighted more heavily towards one agency providing a service rather than being focused on reciprocity.

The City of Wetaskiwin participates in one Fire Service Agreement with the Wetaskiwin Rural Fire Protection Zone 2 Society, and the County of Wetaskiwin.

EMG has reviewed this agreement and observed that while it was enacted on January 1st, 2006, it will remain in place for a period of 20 years. Further, it is identified that it can be revisited from time to time. EMG recommends an annual review of the agreement be completed between all parties to ensure its accuracy and relevance to the needs of each municipality. The effort that goes into maintaining these relationships has a direct benefit to the citizens being served, to protect lives, homes, and infrastructure, and to keep firefighters safe. This one agreement covers services provided by each fire department in providing fire protection for areas of the other's municipality.

Additionally, it is the recommendation of EMG that a comprehensive cost analysis of this Fire Service Agreement be completed. The review should be inclusive of rising equipment, repair, and maintenance costs as well as all costs associated with staffing. This review should be conducted to ensure all rates within the contract remain aligned to current economic times.

Mutual Aid Training Sessions

With all Fire Service, Mutual Aid, and Automatic Aid Agreements, it is an industry best practice that annual training sessions are arranged where firefighters from all participating parties get

acquainted with the equipment of other departments. These combined training sessions also build the working relationship and morale between fire departments. Automatic aid and protection agreements bring fire departments together to work as a team for the benefit of the public, but without combined training sessions to practice as a team, the team cannot effectively function, and breakdowns can occur.

Another benefit of the mutual training session is the identification of gaps in equipment, communications, or training, prior to a real emergency. It is highly recommended that when the current agreements are revised and updated, a defined commitment to regular training be included that designates the position accountable for the completion of this task. In addition, the agreements should lay out a commitment to ongoing meetings with senior fire department leadership. These mutual aid/automatic aid meetings allow fire chiefs and chief officers from the participating departments to discuss issues or gaps in response protocols and to identify a collaborative path forward that enhances fire protection for all participating agencies and communities.

Section 6: Recommendations

Rec #	Recommendations	Estimated Costs	Suggested implementation Timelines	Rationale
27	Conduct an annual review of all response and automatic aid agreements involving WFS.	Staff time	Short-term (1-3 years)	Maintaining an up-to-date agreement will ensure that the communities involved are receiving fire service protection that meets current and future needs.
28	Revisit the existing Mutal Aid Agreement with the City of Leduc.	Staff time	Short-term (1-3 years)	Modernization of the current agreement will ensure all key points and expectations are being addressed on behalf of both parties.
29	Update hourly rates for equipment and personnel to reflect current Alberta Road Builder Rates for firefighting equipment and personnel	Staff time	Short-term (1-3 years)	Alberta Road Builder Rates are established by the Province of Alberta for use by municipal fire departments. Using this rate will increase revenues and establish consistency across all agreements.
30	Complete a comprehensive financial review of the Fire Service Agreement with Wetaskiwin County and Wetaskiwin Rural Fire Protection Zone 2 Society.	Staff time	Short-term (1-3 years)	Rising equipment, repair, and maintenance costs should be reviewed to ensure all rates within the contract remain aligned to current economic times.

SECTION 7

Finance, Budgeting, Fees, and Cost Recovery Mechanisms

SECTION 7: FINANCE, BUDGETING, FEES, & COST RECOVERY MECHANISMS

The current methodology of establishing budgets for the WFS includes the involvement of all the city departments and ultimate approval of City Council. The Fire Chief reports that the arrangement is working well, and no changes are recommended to this structure at the current time.

7.1 Operating Budget

The 2023 operating budget for the department was established at approximately $2,093,640 which was an increase over the 2022 budget of approximately $231,990. Based on information received, it would appear that the fire department is well supported in their operating expenses. The fire department is also showing an increase in its revenues based on the four years of data that was supplied to EMG. As such, both the city and Council should be commended for their ongoing financial support of the WFS.

EMG reviewed the operating actuals and noted that firefighter wages, firefighter benefits, dispatch costs, fuel costs, vehicle maintenance, and insurance costs are the major costs facing WFS.

Data analysis of the supplied actuals can be helpful in determining future budget allocations, however, the impact of COVID-19-driven pricing on cost forecasting is extremely difficult when supply chain issues, delivery costs, and generally higher than expected municipal price index increases are considered. There have been substantial cost increases on items like fire apparatus along with delayed delivery times.

A full financial analysis of the performance of all cost centers is more appropriate within the realm of Corporate Services staff other than to suggest that continued improvements in service provision by the WFS will ultimately have an impact on tax rates.

7.2 Capital Budget

A ten-year capital budget should be created for WFS, along with a 25-year apparatus replacement schedule. This will work well for council planning future costs of WFS and allow decisions to be made to best plan for all large purchase items. This can range to small tools, fire apparatus, and fire stations. It should be noted that fire apparatus has had major price increases since 2019, and these will need to be reflected in the ongoing capital plan.

It is recommended that the WFS produce a long-term needs assessment of any equipment, and

then develop a ten-year capital budget forecast for tools and equipment, and a 25-year budget to look at all apparatus.

7.3 Revenue Opportunities

New construction and redevelopment of buildings attract more people to live and work in Wetaskiwin. As a result, the population and employment grow, and the city must undertake more infrastructure projects and continue to provide a stable level of service.

The money the city collects from development charges pays for part of the capital costs. These are also known as growth-related capital costs. Examples of capital projects development charges could help to fund that are specific to fire services include:

- Building a new fire station
- Purchasing new additional fire apparatus
- Purchasing new bunker gear for an expanded firefighting force

Council approves capital projects every year during the annual budget process and directs the use of development charges to fund capital projects that benefit the whole City, not just the area from where they are collected.

Without these charges, the City would have to pay for growth-related capital costs from property taxes or another source of revenue. As such, it is recommended that the City of Wetaskiwin review and increase its building permits and use that money to fund fire prevention activities within WFS.

EMG is also recommending that the fees and charges by-law be revised to allow WFS to collect the following costs when appropriate:

- The ability to collect replacement costs for damaged equipment.
- The ability to collect funds for fire department response stand-by when appropriate.
- There is currently no specific fee identified for the response to a HAZMAT incident and clean up. Fire Department related costs, and expenses incurred if a contractor is required to perform and mitigate a clean up should be recoverable.
- There is currently no fee attached to the recovery of costs such as those that may be necessary when the fire department issues an order under the by-law(s) or when orders are issued under the Safety Codes (e.g., an immediate threat to life situation where the Department must facilitate short-term accommodations for persons displaced). Cost recovery should be assessed to the property owner.

- There is currently no fee associated to the recovery of costs for heavy equipment (or other services) needed for the investigation of fires in badly damaged buildings. A suitable fee covering actual costs incurred should be assessed to the property owner.

It is recommended that the fees and charges by-law be updated at the next scheduled review to reflect each of the revenue opportunities identified in this report.

7.4 Reserves

Based on information provided, WFS should develop capital replacement plans so the city can adequately fund equipment replacement through the reserves.

Section 7: Recommendations

Rec #	Recommendations	Estimated Cost	Suggested Timelines	Rationale
31	Update the WFS's ten-year capital budget forecast to include a more contemporary reflection of apparatus and equipment replacement costs.,	Costs would depend on improvements and equipment replacement costs.	Short-term (1-3 years)	Ensuring a standard equipment replacement schedule will allow for a more defined equipment replacement plan.
32	Create a 25-year apparatus replacement plan and predict funding requirements.	Costs dependent on replacement plan approved.	Short-term (1-3 years)	Planning for contributions to reserve for vehicle and equipment replacement will help to secure/replace WFS equipment.
33	Revision of the fees and charges by-law be updated at the next scheduled review to reflect each of the revenue opportunities identified in this report.	Staff Time - No Costs	Short-term (1-3 years)	An updated review of revenue opportunities will assist the city in its efforts to support the Fire Department.

SECTION 8

Recommendations, Timelines and Associated Costs

SECTION 8: RECOMMENDATIONS, TIMELINES, AND ASSOCIATED COSTS

8.1 Conclusion

During the review conducted by EMG, it was demonstrated that the full-time staff and POC firefighters are truly dedicated to the community they serve. The Council, CAO, and Fire Chief are sincerely committed to ensuring the safety of the community and the firefighters.

Based on the present staffing, equipment, and fire station locations, WFS is endeavoring to offer the most efficient and effective service possible. As with every emergency service department, and through provisions detailed in this report, there is always room for improvement.

All costs and associated timelines noted in this report are approximate estimates that can be implemented through prioritization between the Fire Chief, CAO, and Council. This FDMP is a long-range planning document; it is, however, recommended that annual updates be completed, along with a full review to be conducted at the five-year mark.

8.2 Recommendations, Estimated Costs, and Rationale

The following chart provides a detailed overview of the recommendations found throughout this report along with any estimated costs and suggested timelines for implementation. A section has also been added to the chart identifying potential efficiencies (rationale) upon implementation of the recommendations presented by EMG.

This review of the fire service has culminated into 35 recommendations.

WFS Recommendations Chart

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
Section 1 – Community & Fire Department Overview				
1	That Fire Administration continue its ongoing reviews Bylaws and policies that affect the daily operations of the fire department to ensure training and other resources are adequate to meet the bylaw/policy.	Staff time	Short-term (1-3 years) ongoing	Understanding the expectations of any by-law will assist the Fire Chief in ensuring proper training and resources are adequate to meet the expectations of any fire-related by-law.
2	Establish a SOG Committee representing all divisions of the WFS that develops new SOGs and reviews current ones regularly.	Most costs will be in relation to time spent by the paid-on-call firefighters.	Short-term (1-3 years)	Establishing a SOG committee will aid in maintaining the information in the database to be current while allowing the participation of WFS members to determine the fire department's operations.
Section 2 – Risk Assessment				
3	A review (by FUS) of the Fire Department operations to set and/or improve its FUS grading in the measurement of fire service operations and abilities be undertaken.	Staff time	Short-term (1-3 years)	No recent copy of an FUS review was available. As such, the city should apply for a review by FUS, which will provide even more valuable information as to what fire protection is required by the city.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
Section 3 – Fire Department Divisions				
4	That a full accounting of time spent on administrative duties be recorded to identify when the addition of a part of full-time person may be needed (for administrative duties). *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Staff Time for the Initial Review	Immediate (0-1 year) ongoing	Although the administrative division would benefit from the inclusion of even a part-time administrative assistant, it is understood that the inclusion of the full-time response component has provided a greater overall benefit to the department and the community. However, the administrative duties and related records management needs should not be overlooked.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
5	WFS expand and formalize its Public Education activities by identifying and appointing two part-time (paid-on-call) public education officers (one in each of its two stations) from within their existing (paid-on-call) staff complement to work collaboratively with the fire chief to develop a comprehensive fire safety education program for the community. *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Staff Time and cost (wage adjustment) for related training and certification	Immediate to Short-term (0-3 years) ongoing	The two "new" public educators should work collaboratively and with a dedicated budget and programming expectations to more fully develop and deliver local programming, notably in the area of smoke alarm awareness, home escape planning and carbon monoxide alarm awareness, along with specific fire cause prevention messaging. As the community grows, transitioning the public education role to a dedicated full-time position should be considered – likely long-term horizon.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
6	That the Wetaskiwin Fire Service continue to invest in its fire cause and determination program by developing a continuing education program for additional qualified staff members that includes training, and attendance at subject-focused seminars and membership in the Canadian Association of Fire Investigators (C.A.F.I.), and the International Association of Arson investigators (I.A.A.I.). such that the number of NFPA 1033 qualified investigators be increased.	Staff Time and cost (+/- $2000 annually) for related training and certification	Short-term (1-3 years)	Having additional fire department members qualified in fire investigations will create a good level of support for the existing staff conducting these activities while creating a higher level of origin a cause awareness throughout the Department. Alternately, the Department could consider formalising an agreement with neighbouring Departments who have the requisite capabilities.
7	That the Wetaskiwin Fire Service further develop its capacity and capabilities respecting Fire Code and Enforcement activities by identifying and appointing a part-time Fire Inspector (Fire Prevention Officer) who is fully trained and certified (or obtains certification within a reasonable time frame) to the NFPA 1031 Level II standard.	Minimal cost if utilizing present full-time firefighter. or Approximate initial salary cost of $60,000.00 to $90,000.00 per year	Short to Mid-term (1-6 years)	By creating a dedicated position of Fire Inspector, a more consistent level of inspections and code enforcement can be obtained reducing risk exposure for the city due to potential errors or omissions.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
	• This can also be accomplished by qualifying one of the full-time firefighters to this level of capability. *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*			

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
8	WFS further develop its capacity and capabilities respecting firefighter training and certification by identifying and appointing a full-time Training Officer who is fully qualified and certified (or obtains certification within a reasonable time frame) to the NFPA 1041 Level II standard. • This can also be accomplished by implementing the position to start as a part-time position that can evolve to full-time. • There is also the possible option of qualifying one of the full-time firefighters to this level of capability *Note: presently the three full time firefighters are assisting the department with these duties. This supports the added value that these three staff bring to the organization, and the community they serve.*	Minimal cost if utilizing present full-time firefighter. or Approximate initial cost of $60,000.00 to $90,000.00 per year	Short to Mid-term (1-6 years)	By creating the full-time Training Officer position, a more consistent level of training and records management can be obtained.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
9	All WFS Instructors conducting live fire training be competent in NFPA 1403.	$+/-1500 per student plus travel, accommodations, and staff time	For future consideration as required	Instructor certification to the NFPA 1403 Live Fire Instructor Standard will promote safe training evolutions while enhancing learning opportunities for students. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.
10	That WFS Adopt NFPA 1402 Standard for Fire Service Training Facilities to ensure its training facility is meeting an industry standard.	Staff time to research the standard and develop SOP's/Policies	For future consideration as required	Implementing the NFPA 1402 Standard will assist in ensuring the design, construction, repair and maintenance of the training facility aligns with industry best practice, possibly reducing liability should a failure occur at the site As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
11	Adopt NFPA 1403 Standard for Live Fire Training to ensure safety of all personnel taking the training.	Staff time to research the standard and develop SOP's/Policies	For future consideration as required	Implementing the NFPA 1403 Standard will assist in ensuring industry recommended processes are in place and followed to ensure the safety of all users. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
12	Develop a budget for the future upgrading and/or replacement of training props for the Fire Service Training Facility.	Staff time to determine costs and create formula/ replacement schedule	For future consideration as required	Implementing a dedicated training facility replacement plan, for all training props will aid in ensuring funding is available to replace damaged or worn-out equipment in a timely manner. As noted, a timeline for implementation can be applied, when or if the training programs and training facility dictate this need.
13	That WFS develop a pool of trained Duty Officers to provide after-hours administration and response support.	Training costs (if required) call out fee's/wages. The development of an on-call stipend for Duty Officers may cost $5,000.00 - $8,000.00 / year	Short-term (1-3 years)	Presently, the Fire Chief and Deputy Chief are available 24/7 for support as needed. This does not allow for any "scheduled" time off. The Duty Officers concept would allow more flexibility for having on-call senior officer availability as needed. This would also help to provide more of a work-life balance for the Fire Chief and Deputy Chief, by allowing for scheduled time off.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
14	Create position/ job descriptions for each position within the WFS that are not presently covered. • This would include Training Officer, Fire Prevention Officer and Fire and Life Safety Educator. • And included levels of training/certification required. ***Note:*** *Presently, the three full time firefighters are assisting with these functions, but more detailed job descriptions/duties are still required.*	Staff time of Fire Service and Human Resource personnel	Short term (1-3 years)	To aid in staff development and succession planning, additional job descriptions for each position within the WFS should be developed to help identify promotional requirements. These descriptions should include minimum training levels to help those aspiring to new positions to identify requirements and expectations of the positions.
15	To support the retention of the paid-on-call firefighters, a full review of their compensation (pay per hour), along with pay incentives for those taking on more duties and responsibilities, needs to be conducted (based on the chart supplied within the section).	Depending on the review outcome	Immediate to Short-term (0-3 years) ongoing	To ensure the longevity of the paid-on-call firefighters with the WFS, a full review of pay and incentives should be conducted to ensure that the city is in line with what other similar communities are doing.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
16	That the fire service should not only keep the full-time firefighters in place; they should also consider enhancing opportunities in advancing the value of such a component for community fire safety.	Ongoing budgeting of the full-time firefighters (as noted in the 2023 budget)	Ongoing	The utilization of the full-time complement of firefighters is providing the City of Wetaskiwin with a more efficient and effective response component during the weekday operations (in support of the paid-on-call firefighters). Further utilization of these full-time firefighters to assist with fire prevention, public education, training, equipment checks, and maintenance is a good investment in staff. *This investment of having the three full time personnel can be seen by the additional notes added to several of the recommendations, such as #4, 5, 7, 8, 14, 16 and 26.*

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
Section 4 – Facilities, Equipment and Vehicles Recommendations				
17	Develop a plan to address the noted fire station concerns. • The key concerns are relating to the lack of a diesel exhaust system at each fire station and the need for emergency backup power.	Installation of exhaust system estimate of $20,000 to $40,000 per station. Backup generators can range from $15,000 to $,000 per unit. Depending on facility needs.	Immediate to Short-term (0-3 years)	*Ensuring protection from diesel exhaust fumes will protect the firefighters from this cancer-causing product, which is a health and safety concern.* And having emergency backup power will ensure that these emergency response facilities can operate during large power outages.
18	Develop a vehicle replacement plan to ensure that all fire vehicles are replaced on a scheduled basis.	Cost of a fire truck can range $800,00 for an Engine to $2 million dollars for an aerial.	Short to Mid-term (1-6 years)	Ensuring a healthy and dependable fleet of emergency response vehicles is a must for any emergency service.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
Section 5 – Emergency Management Recommendations				
19	That WFS continue to implement the recommendations received from AEMA along with the recommendations provided by EMG, as they relate to the plan	Staff time plus incidental costs that may arise from updating the MEP	Immediate to Short-term (0-3 years) ongoing	WFS received the results of the AEMA 2022/2023 review of the City's MEP. This review recommended some updates to the plan along with training exercises and continued ICS training. All of this is needed to keep the city in compliance with the Provincial emergency management expectations.
20	The City of Wetaskiwin to review the feasibility of acquiring an emergency notification system or expand on a current system used by the Fire Service, to notify employees of an EOC activation.	Costs associated with the expansion of an existing system or purchase of a new system are unknown.	Mid-Term (4 to 6 years)	The current process to activate staff for an ECC is to call to each person directly. As the first minutes of an emergency or disaster are critical, a faster way to notify staff is required.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
21	Develop a four-year plan for the city to exercise the MEP while building staff confidence in responding to and addressing, an emergency or disaster.	Staff time plus incidental supplies and resources necessary to facilitate exercises	Short to Mid Term (1 to 6 years)	The LAEMR identifies that a municipality must exercise their MEP each year with one large-scale exercise to be held once every four years.
22	Due to the importance of staff understanding their roles and responsibilities in the EOC, it is recommended that a policy be implemented that identifies ICS 200 as the minimum standard for staff required to be in the EOC with ICS 300 as the goal for all department heads (Section Chiefs). Although some ICS training may be taken online, it is further recommended that ICS 200 and 300 are both delivered in person.	Staff time, course supplies, external instructor costs, travel, and accommodation for out of area training.	Short-term (1 to 3 years)	It is imperative that staff holding Section Chief and Command and General Staff positions, have ICS 300 level of training. By reaching this level, it will also provide consistency to the level of expertise among the members of the ECC.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
23	The City of Wetaskiwin engage all Emergency and Disaster Aid Agreement partners to conduct a review of each agreement.	Staff time, travel, and incidental supplies	Mid Term (4 to 6 years)	This review will allow partners to review each agreement for consistency and accuracy, discuss updating each agreement to meet current legislation and terminology as well as, to discuss the possibility of shared training and exercise opportunities
24	In partnership with the County of Wetaskiwin, complete a review of both the Primary and Secondary ECC's.	Staff time, travel, and incidentals	Short-term (1 to 3 years)	Consistency and operational readiness between the primary and secondary ECC's are essential.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
25	Engage with area partners to discuss the concept of a Regional Emergency Management Commission/Partnership, for the City of Wetaskiwin and surrounding communities.	Staff time, travel, and incidentals.	Long Term (7 to 10 years)	Other regions within the province have successfully entered emergency management partnerships, one example is the Grande Prairie Regional Emergency Partnership (GPREP). These types of partnership allow for the cost sharing of emergency management programs and for the pooling of resources to respond to and mitigate an event. *Note: Should there be interest among partners, a consultant may be jointly hired to specifically look at the feasibility of a partnership. Some grant funding may be available.*
26	Hire a .5 FTE Emergency Management Coordinator to oversee the MEP, and the coordination of exercises and training. *Note: Presently, the three full time firefighters are assisting with these functions, but a more detailed job description/duties is still required.*	Estimated at 45K per year + employer contributions (22%+/-)	Mid Term (4 to 6 years)	This new position would be focused on ensuring the City of Wetaskiwin's Emergency Management Program is in-line with the requirements of the province, and that it meets the needs of the community.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
Section 6 – Mutual and Automatic Aid Recommendations				
27	Conduct an annual review of all response and automatic aid agreements.	Staff time	Short-term (1-3 years)	Modernization of the current agreement will ensure all key points and expectations are being addressed on behalf of both parties
28	The Wetaskiwin Fire Service revisits existing Mutal Aid Agreement with the City of Leduc.	Staff time	Short-term (1-3 years)	Modernize current agreement or draft a new Mutual Aid Agreement.
29	Update hourly rates for equipment and personnel to reflect current Alberta Road Builder Rates for firefighting equipment and personnel	Staff time	Short-term (1-3 years)	Alberta Road Builder Rates are established by the Province of Alberta for use by municipal fire departments. Using this rate will increase revenues and establish consistency across all agreements.
30	The Wetaskiwin Fire Service completes a comprehensive financial review of the Fire Service Agreement with Wetaskiwin County and Wetaskiwin Rural Fire Protection Zone 2 Society.	Staff time	Short-term (1-3 years)	Rising equipment, repair and maintenance costs should be reviewed to ensure all rates within the contract remain aligned to current economic times.

Rec #	Recommendation	Estimated Costs	Suggested implementation Timelines	Rationale
Section 7 – Finance Recommendations				
31	Update the WFS's ten-year capital budget forecast to include a more contemporary reflection of apparatus and equipment replacement costs.	Costs would depend on improvements and equipment replacement costs.	Short-term (1-3 years)	Ensuring a standard equipment replacement schedule will allow for a more defined equipment replacement plan.
32	That the WFS 25-year apparatus replacement plan be created, and funding requirements predicted.	Costs dependent on replacement plan approved.	Short-term (1-3 years)	Planning for contributions to reserve for vehicle and equipment replacement will help to secure/replace WFS equipment.
33	Revision of the fees and charges bylaw be updated at the next scheduled review to reflect each of the revenue opportunities identified in this report.	Staff Time - No Costs	Short-term (1-3 years)	An updated review of revenue opportunities will assist the city in its efforts to support the Fire Department.

APPENDICES

Appendix 'A' – Five-Step Staffing Process

Appendix 'B' – Response Data 2019 - 2020

Appendix 'A'

Five-Step Staffing Process

APPENDIX A – FIVE-STEP STAFFING PROCESS

Step 1: Scope of Service, Duties, and Desired Outputs

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

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

Step 2: Time Demand

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

- Local nuances
- Resources that affect personnel needs

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

Step 3: Required Personnel Hours

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

- Development/preparation
- Service

- Evaluation
- Commute
- Prioritization

Step 4: Personnel Availability and Adjustment Factor

Average personnel availability should be calculated, taking into account the following:

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

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

Step 5: Calculate Total Personnel Required

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

Correct calculations based on the following:

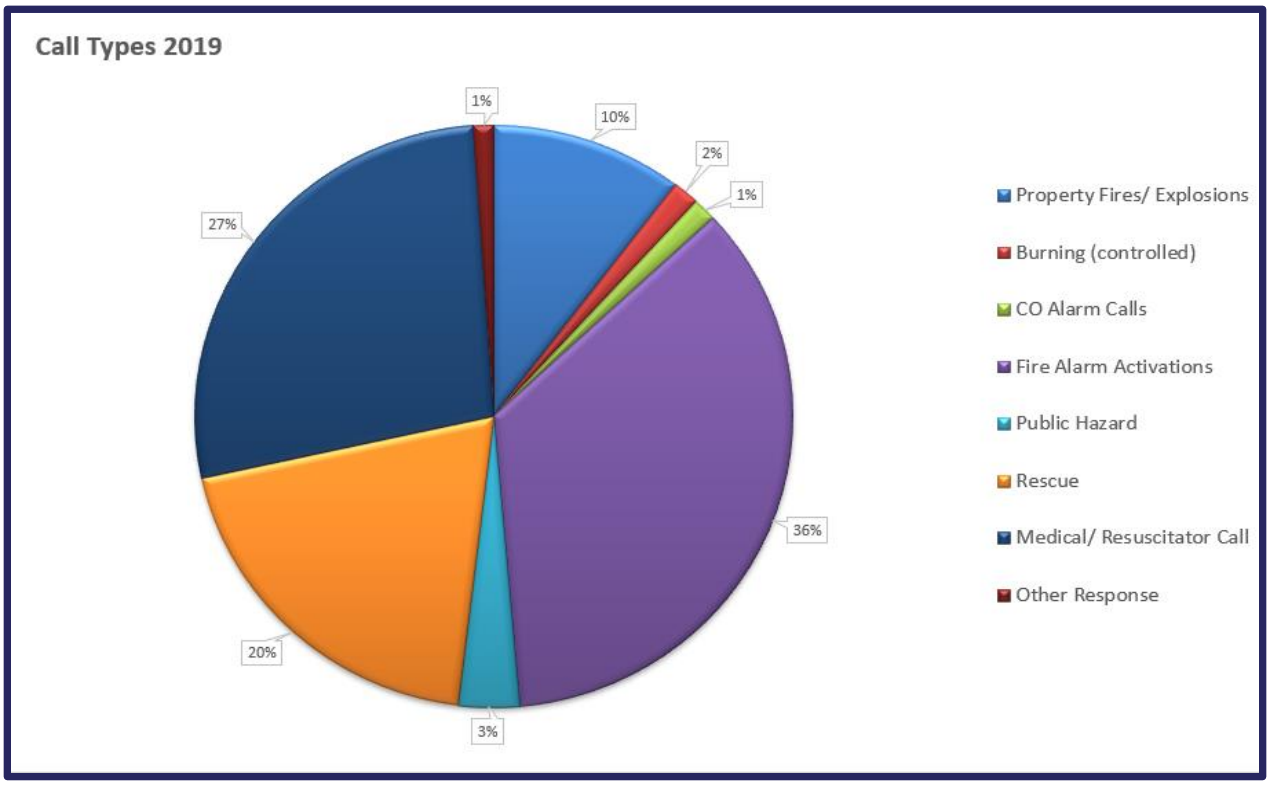
1. Budgetary validation
2. Rounding up/down
3. Determining reserve capital
4. Impact of non-personnel resources (materials, equipment, vehicles) on personnel

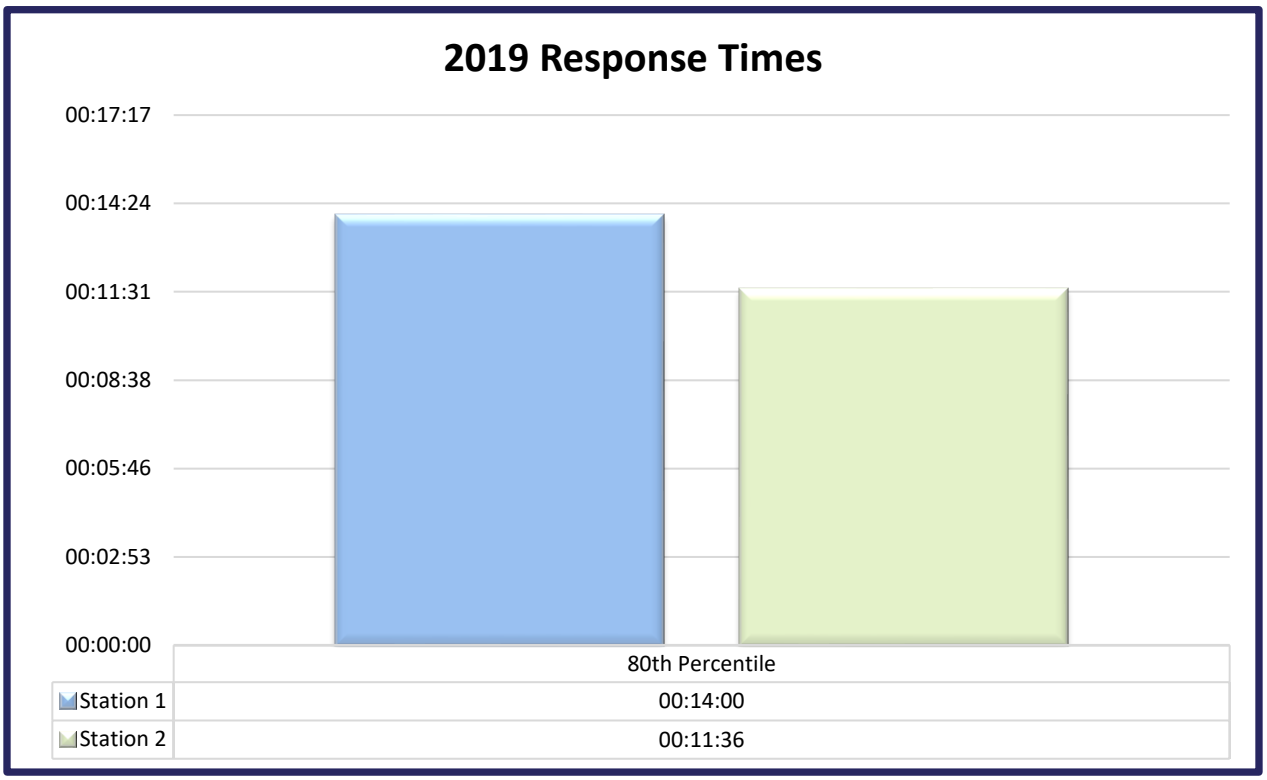
More information on this staffing equation can be found within the National Fire Protection Association 1730 standard. The Fire Prevention should assess the previous five steps and evaluate their present level of activity and the future goals of the Branches.

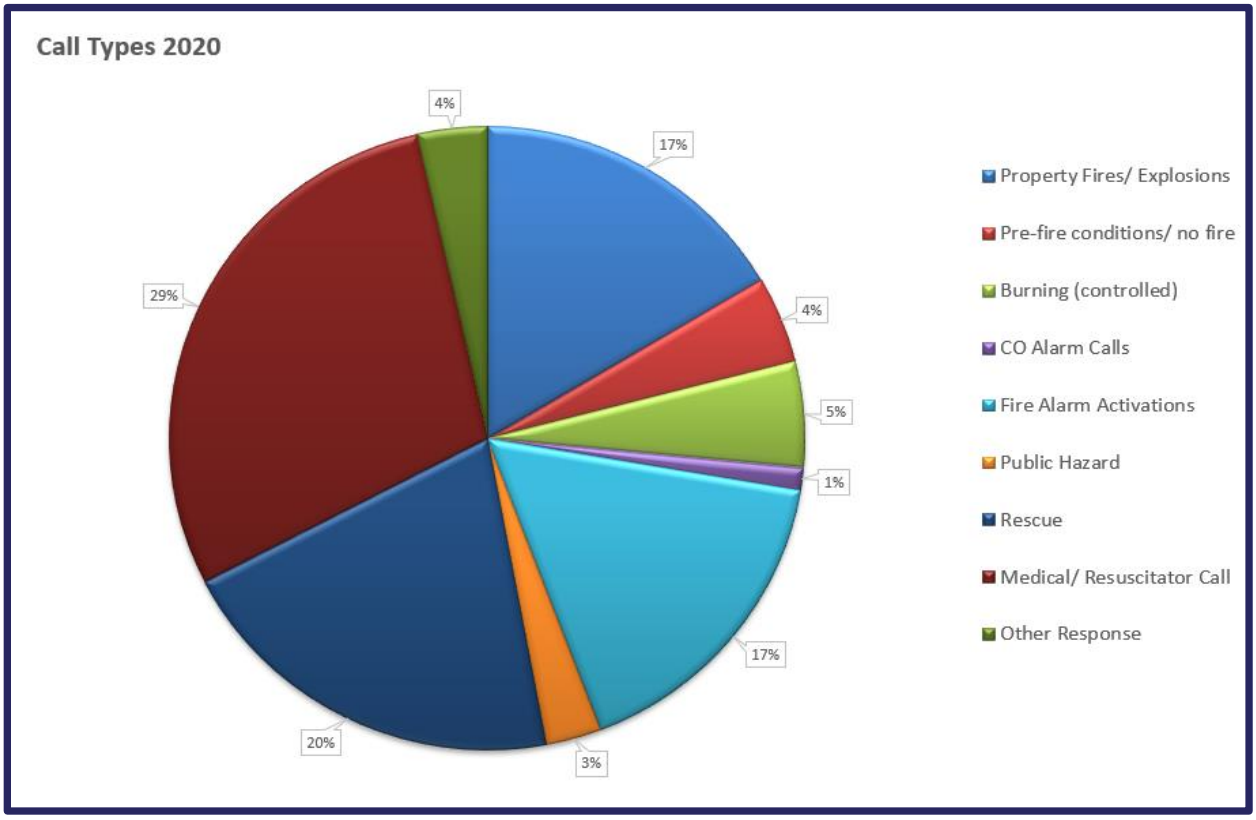
Appendix 'B'

Response Data
2019 - 2020

APPENDIX B – RESPONSE DATA 2019 – 2020






Call Types 2020
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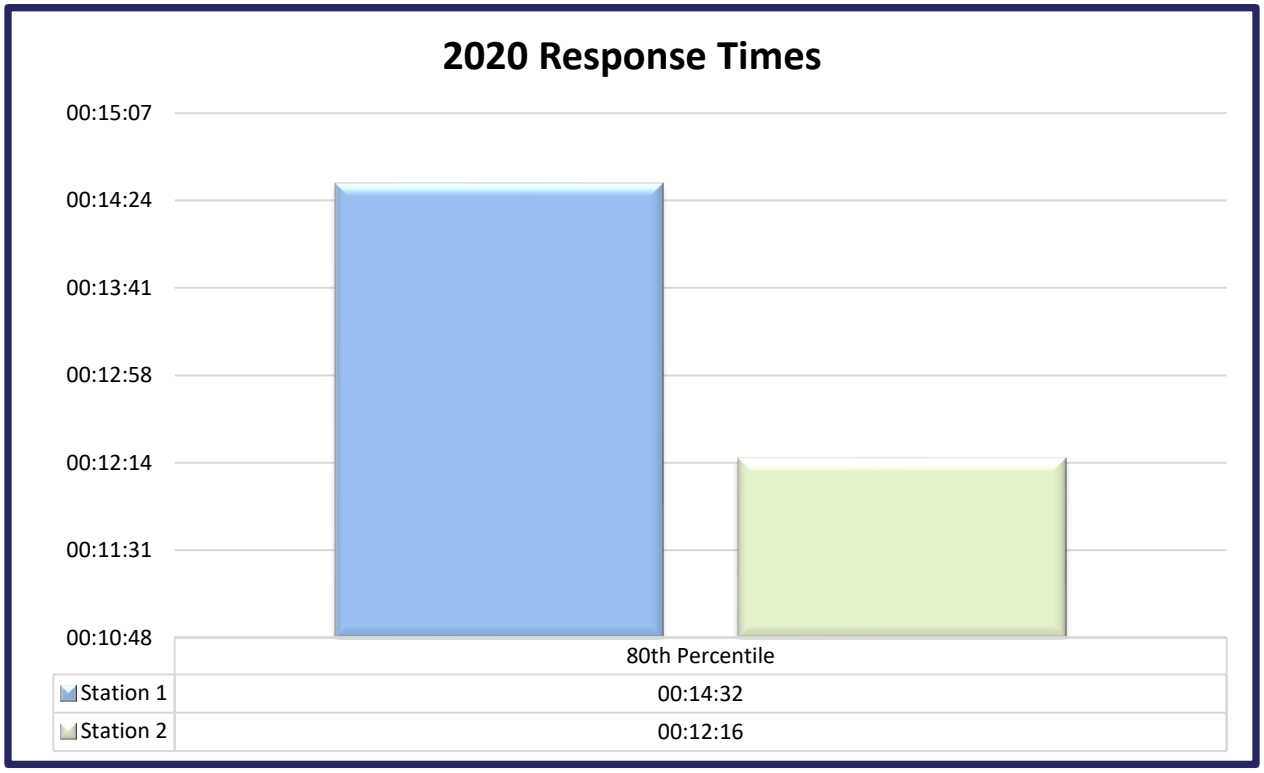
17%
29%
4%
5%
1%
17%
20%
3%
Property Fires/ Explosions
Pre-fire conditions/ no fire
Burning (controlled)
CO Alarm Calls
Fire Alarm Activations
Public Hazard
Rescue
Medical/ Resuscitator Call
Other Response


2020 Response Times
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00:14:24
00:13:41
00:12:58
00:12:14
00:11:31
00:10:48
80th Percentile
Station 1
00:14:32
Station 2
00:12:16