CITY OF CAMROSE

2020 FIRE DEPARTMENT MASTER PLAN

VOLUNTEER
FIREFIGHTERS

Researched and presented by

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EXECUTIVE SUMMARY

Effective management of a fire department requires a clear understanding of risks versus the ability to provide and manage resources to deal with the risk. It is imperative that all stakeholders, including the fire department management along with municipal management and political decision makers, know how fire department resource deployment affects the outcome of a response.

Many fire departments across the nation are challenged by budget constraint, rising call volumes, expectations to do more with less and increased risk. Failing to effectively manage these considerations can leave a community and the responders vulnerable, leading to unfavorable outcomes. Communities must effectively assess the risks and create a plan that encompasses future needs. This is particularly true for communities like the City of Camrose.

COMMUNITY OVERVIEW

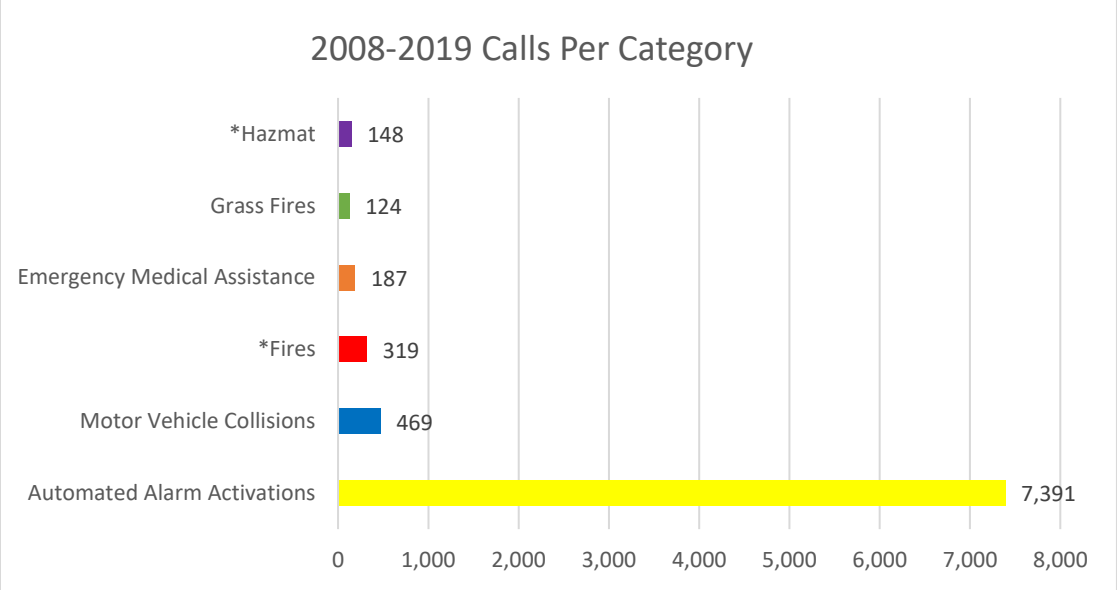
The environmental scan and community profile analysis determined specific challenges that have a correlation with community risk factors. These include the following:

- Industrial/economic development;
- Demographics of the community;
- Rate of population growth in the community;
- Annexation of lands, and
- Transportation.

Camrose, from an overall perspective has a typical mix of residential, commercial, and institutional occupancies for a City with a population close to 20,000 people. The environmental scan and community profile on its own does not present an increase risk potential for the City. However, there are a number of factors that do present increased risks and should be considered as part of Camrose's Emergency Response System. These community factors include:

- Residential construction types;
- Rate of growth and demographics;
- Industrial/commercial activities, and;
- Transportation system corridors

The following chart provides data on the incident calls for the City of Camrose for the period of 2010 – 2019.



*Hazmat includes dangerous goods, natural gas and carbon monoxide.

*Fires (all categories) includes structure fire, vehicle fire, and dumpster fire.

The emergency response statistical information validated the community risk factors and indicates a steady call volume increase in all areas.

Of particular concern is the number of “Fire Alarm Activation” and “Motor Vehicle Collisions”. These service requests consume a considerable amount of the current emergency response capacity.

SUMMARY OF RECOMMENDATIONS

The following recommendations are provided throughout this document and identified under Short 0-3yrs, Intermediate 3-5yrs and Long Term goals 5-10yrs. Each recommendation refers to the section and page location in the document where the item is addressed.

Short Term Goals – 0-3 Years

1. Build a high level of coordination between the City’s Planning and Development Department and the Camrose Fire Department (CFD) to ensure the emergency response service levels keeps pace with the rate of development.
   Reference: Risks, Section 5.1 Page 46
2. Continue to maintain a core group of Paid On Call Volunteer Firefighters (45) with the considerations of adding 2 more full time staff to meet the needs of having one truck crew able to respond during the Monday – Friday daytime responses.

Implement a year round weekend on call duty system to ensure adequate coverage is available year round to respond to weekend calls.
Reference: Response & Response History, Sections 5.2, 5.3, Pages 46 - 48

Phase 1 – Continue to maintain a core group of Paid on Call Volunteer Firefighters. To meet response capabilities for weekends consider expanding on the on call duty system to year round to ensure weekend availability year round.
Phase 2 – Add two more additional full time staff to meet the needs of having one truck crew able to respond during the Monday-Friday daytime response.

3. Maintain the established Vehicle Apparatus Replacement Program that follows Underwriters Laboratories of Canada CAN/ULC-S515-M88 Standard for Automobile Fire Apparatus. Apparatus should be kept on first alarm response duty for the first 15 years of service, retired to reserve status for 5 years, then retired from service altogether and continue to set funds away annually for this purpose.
Reference: Equipment – Vehicles Section 5.17.1 Page 59

4. Establish Capital Replacement Programs for major replacement items such as SCBA, Bunker Gear, Fire Hose and Radio Communications equipment whereby funds are set aside annually for this purpose.
Reference: Equipment, Section 5.17.2 Page 60

5. Review Mutual Aid Agreements with all external stakeholders and partners to determine ongoing support and assistance
Reference: External Resources & Partnerships, Section 4.7 Page 45

Intermediate Goals – 3-5 Years

6. Develop clear service levels based on the Risk Assessment Tool and Critical Task Analysis in conjunction with City Council and Senior Administration from both the City of Camrose and CFD.
Reference: Performance Standard, Section 5.4, Page 47

7. Continue and maintain an adequate training program and to meet the needs of the members, it is recommended that the Fire Training Grounds project be completed.
Reference: Training, Special Operations, Sections 5.11,5.12 Pages 55-56

8. Transition the Fire Service to digital radio communications system with the potential movement towards a provincially based system such as AFFRAC's.
Reference: Communications, Section 5.20 Page 61

9. Ensure adequate resources are designated for inspections and public education. Fire Prevention and Education is an important tool of the fire department the more

"PROACTIVE "we are in prevention and education hopefully the less "REACTIVE" we are with Emergency response.
Reference: Fire Prevention Section 5.21 Page 61

Long Term Goals – 5-10 Years

10. Allocate land on north side of Camrose for a second Fire Station. (See map of Future Fire Station Land Locations). It is further recommended to secure the land of either Site # 2 or # 9 for this purpose as they have the best access routes around the north side. Having the land designated now will assist those tasked with planning for the future to not have to look for space to build. This approach was similar to the approach taken many years ago that set aside the land that the current building is located.
    Reference: Operations - Facilities, Sections 5.13 Page 56
11. Meet with building and development officials to introduce residential Fire Sprinkler Systems in our community. Continue and maintain Fire Inspection and Education Programs (Safety Codes Officers)
    Reference: Service Levels, Section 5.15 Page 58
12. Consider the regionalization of the fire service between the City of Camrose and the small fire departments within Camrose County. Consider starting with County run departments (Round Hill & New Norway) first then branching off to include the others at a later date.
    Reference: External Resources & Partnerships, Section 4.7 Page 44

1. INTRODUCTION

1.1. INTRODUCTION

The primary focus of this project was to develop a long term operational strategy for the City of Camrose Fire Department as the last master plan was done in 2001. It does so by identifying and assessing the nature and sources of risk faced by the community, calibrating the resources available to address these risks, and then identify any gaps between risks and resources.

By initiating a Fire Master Plan, the City of Camrose seeks to strategically guide the Camrose Fire Department through the next 10 years of municipal growth. The Camrose Fire Master Plan study included an assessment of the following:

- Community Risks;
    - Population and Growth
    - Annexation of Lands

- Programs and Services;
    - Core Services
    - Operating Principles
    - Level of Service

- Resources ;
    - Staffing and Deployment
    - Training
    - Equipment and Infrastructure
    - External Partnerships

- Financial Implications;
    - Costs and Budgets

Recommendations will be provided throughout this document regarding how best to address the identified gaps. This approach was designed to ensure that the nature and allocation of resources and the relationships between key stakeholders are aligned with the real risk.

1.2. BACKGROUND AND SIGNIFICANCE

The City of Camrose Fire Department has faced many significate changes over the past 10 years, moving into a new fire station was a very positive move as outlined in the last master plan as a specific need. The most critical change has been in the ability to maintain a contingency of experienced and trained Volunteer/Paid On Call Firefighters. Over the past 10 years the department has lost 50% of experienced firefighters due to retirements or relocation which relates to over 425 years of lost experience. The average years of service today is 10yrs with over 50% of the department with tenure of under 10yrs.

Through effective leadership, CFD has proven the ability to function effectively when managing challenging response demands with limited resources. Many communities face similar questions regarding the right level of service and appropriate staffing based on the level of risk the community faces. There is value in using comparisons to similar size communities where the network of shared information helps to provide an understanding of a reasonable approach to managing risk. This network of comparative municipalities also provides opportunities to share new and innovative strategies in managing resources required to operate an effective emergency response system.

1.3. PROJECT SCOPE

The project scope was intended to harmonize the goals of safety for both the public and emergency responders, and to meet the current and projected needs of the City of Camrose in an efficient and fiscally responsible manner.

Project Tasks

The completed tasks listed below were based on practices that have a direct impact on effective emergency service delivery:

- Environmental scan of the community and a community profile which included and assessment on population trends, demographics and community projections;
- Blended the community risk assessment and staffing report to determine an optimum level of service;
- Reviewed other studies and/or recommendations that identify alternate methods of mitigating emergencies and other risks;
- Analyzed the current operational practices and procedures, response capacity and assessed the complexities of the delivery of sustainable, competent emergency response for our area;
- Reviewed emergency response safety standards, including OH&S regulations;
- Reviewed operational regulations, safety requirements, standard operating guidelines/procedures, job performance requirements, response practices;
- Reviewed any inter-municipal/agency agreements and relationships, such as those with Camrose County and surrounding departments to identify operational requirements;
- Evaluated the legislated structure (Bylaws) currently being employed by the emergency services;
- Identified constraints, barriers and pressures preventing effective and efficient operation of services and programs;
- Conducted a needs assessment and analysis of current and future emergency response requirements for the community;
- Weighed the current effectiveness and efficiency of the service against the risks identified within the area to present options for mitigating the risk, response to and manage the risk for service delivery, and,
- Create realistic timelines in order to achieve optimum service delivery using a 5 and 10 year span.

2. RISK ASSESSMENT

2.1. WHAT IS A RISK ASSESSMENT

Risk Assessment is a process used to identify the community's fire protection and other emergency service needs. All fire departments should have a basic source of data and information in order to logically and rationally define the fire departments' mission. The overall purpose of using these processes is to establish a long-range general strategy for the operation of the fire department.

Conducting a risk assessment is the first step towards establishing an effective strategy plan and is intended to identify information required by a municipality to make informed decisions about protection, fire prevention programs and activities necessary to effectively manage community risk based upon local needs and circumstances.

Every municipality has common and unique challenges when it comes to safety of its citizens. It is the unique challenges and the community's identified risk tolerances that require every fire department to modify their structure and equipment to best serve the citizens. Municipalities have a fundamental and legislative responsibility in conducting community risk assessments to provide effective public and private property protection. In general terms, needs and circumstances relate to a municipality's economic situation, geography, population, building profiles and service delivery system.

2.2. RISK ANALYSIS

A thorough review of available data was conducted including the City of Camrose Fire Service Bylaw, census data, demographics, community, industrial, and response statistics. These risks have been determined by reviewing the documentation as to where the Camrose Fire Department is today and what the prevalent risks are.

The risk analysis serves to outline many of those risks but specifically addresses the risks that should be mitigated through City and fire service planning in the coming years.

2.3. RISK EVALUATION MODEL

The evaluation of fire risks must take into account the frequency and severity of fires and other significant incidents. Determining risk by analyzing past statistical information and projected growth is essential to the development of an appropriate level of service, staffing model and performance matrix. The risk assessment can be divided into four quadrants, which pose different requirements for commitment of resources in each area. *(See Figure 1, Page 14)*

Distribution is the number of resources placed throughout the City. **Concentration** is the number of resources needed in a given area within the City. Concentration varies depending on many factors including the number of incidents or calls for service, the risk factors of the area, and the availability, reliability, and time of arrival of secondary responding units.

2.3.1. Risk Management

Decision makers and fire service management must understand the relationships between probability and consequence and the community's adopted service level goals to determine the required concentration and distribution of both emergency prevention and response resources. The challenge for the community will be to fund the proper balance between prevention and response services for the distribution and concentration of resources needed based on Camrose's growth projections.

Risk management is the analysis of the chance of an event occurring and the resulting damage that could occur as a result of the event. It is recommended that Camrose Fire Department use the following probability matrix *(See Figure 1)* to categorize risk using probability and consequence as a method of assigning risk to individual properties. All properties in Camrose can be reviewed and assigned to one of four different risk levels.

The challenge in community risk management does not lie solely in the work necessary to assess the probabilities of an emergency event in a community, but in the political arena as well. It is the policymakers who will determine the level of service to be delivered to the area being served.

2.3.2. Risk Evaluation Matrix

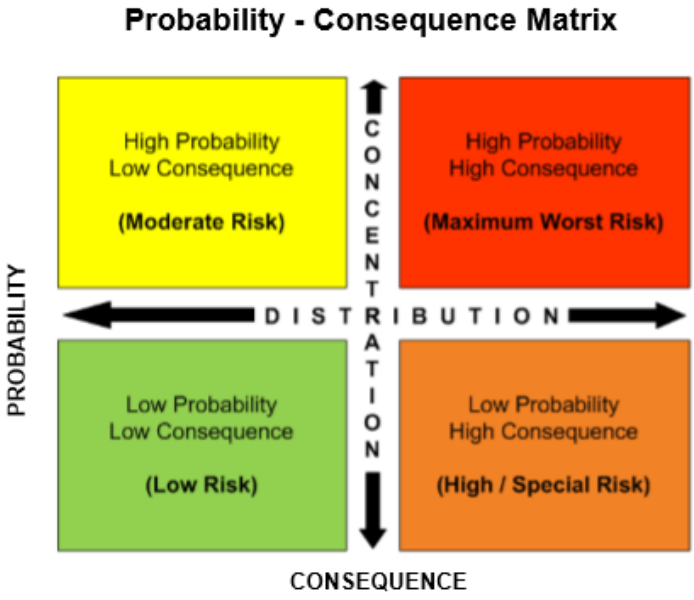


Figure 1: Risk Evaluation Matrix

Different quadrants of the risk matrix require different response requirements. The four possible relationships between structures or conditions and the distribution of resources can be defined as follows:

Probability – The likelihood that a particular event will occur within a given time period. An event that occurs daily is highly probable. An event that occurs only once a century is very unlikely. Probability then is an estimate of how often an event will occur.

Consequence – There are three primary components when considering possible consequences:

- **Life Safety** (including incidents that risk the lives of occupants, and the lives of responding personnel, and the amount of personnel and equipment required to rescue or protect the lives of occupants from life-threatening situations which include: fire, hazmat, medical, motor vehicle accidents, extreme weather, flooding and all types of rescue situations);
- **Economic Impact** (the losses of properties, income, or irreplaceable assets),and;
- **Environmental Impact** (consequences include the risk of irreplaceable or long term damage to the environment). Other consequences such as impact to the community (the loss of historic buildings, recreation facilities or community infrastructure) are identified but do not impact resource deployment.

Low Risk = Low Probability and Low Consequence

This category is limited to areas or incidents which are defined as having a low probability of fire risk and low consequence for the potential of economic loss or loss of life. Some examples are vacant land, parks without structures, and isolated structures such as sheds. In addition to low fire risk, other responses would include:

- Wildland fires
- Outdoor fire pits
- Lightning strike non-structure

Moderate Risk = High Probability and Low Consequence

The majority of responses fall under this category. This includes miscellaneous explosions, standbys, smoke, odours, garbage fires, detached garages, single or multi-family residential fires and small non-residential buildings less than 600 square meters.

- Motor Vehicle Collisions
- Spill clean-up
- Carbon Monoxide detection
- Emergency medical
- Monitoring/local alarms
- Vehicle fires
- Hazmat incidents with small quantities of a known product (20 litres or less), outdoor odours (natural gas or unknown)
- Water rescue incidents

High Risk = Low Probability and High Consequence

There are very few properties that are considered high probability, high consequence. These properties can be categorized as large properties, over 600 square meters, without adequate built-in fire protection systems, that have large concentrations of people or have a significant impact on the local economy.

- Train incidents within the city limits
- Commercial, industrial warehouse, midsize residential, etc.
- Hazmat incidents with large quantities of known products (75 litres or more), unknown products or large exposure
- Vehicle fires in parkades

Maximum Risk = High Probability and High Consequence

This category of risk can be generally categorized as properties over 600 square meters that have high economic value in the form of employment or are not easily replaceable, or natural disasters occurring in highly populated areas, creating high life and property loss potential and strains on department and other agency resources. Damage to properties in this category could result in temporary job loss or permanent closure of the business. Such properties are highly regulated or possess built-in fire protection systems.

- Elevator or Technical Rescue including trench or high angle
- Large vehicle accidents, pile-ups
- Quantities of known products (20 to 75 litres), indoor natural gas odour
- Aircraft incidents within city limits
- Hospitals, care homes, institutions
- Explosions or Sub-station electrical fires
- Confirmed natural gas leak
- Underground pipeline eruption

2.4. CHALLENGES

Specific challenges that have a correlation with community risks include the following:

- Industrial/economic;
- Rate of population growth in the community;
- Demographics of the community, and;
- Transportation

2.5. AREA CHARACTERISTICS

The characteristics of the community are documented by collecting available mapping data.

2.5.1. Geography

Camrose is located approximately 81km south of Sherwood Park on Highway 21. The main thoroughfare that runs east/west through the City of Camrose is Highway 13, also known as 48 Avenue. In addition, two major rail lines CP rail east and west and CN Rail north and south intersect the city providing additional risk as well as a barrier for response.

2.4 Challenges

Specific challenges that have a correlation with community risks include the following:

3. Industrial/economic;
4. Rate of population growth in the community;
5. Demographics of the community, and;
6. Transportation

2.5 AREA CHARACTERISTICS

2.51 Geography

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The City of Camrose is approximately 44 square kilometers in size with a population density of 454 inhabitants per square kilometer.

2.5.2 Industrial Economy

Camrose benefits greatly from its location within a strong regional economy. The main components of the City's economy consists of Education, Health Care, Agriculture and Pipe Manufacturing. Major industrial companies consisting of Evraz, Shaw Pipe and Cargill.

2.6 POPULATION AND GROWTH

2.6.1 Population and Growth

After reviewing the City of Camrose growth study update 2006 – 2056 it is anticipated that Camrose will see annual growth rates of 1% over the next 10 years. Given these rates and our present population of 18,742 it is estimated that Camrose will achieve a population of 22,490 by 2030. As we see that there is not a real significant increase in population within the next 10 years, population and growth will not have a huge impact on this Master Plan.

2.7 ANNEXATION OF LAND

2.7.1 Annexation of Land

As the City is not expected to be annexing land in the near future this does not impact directly on the fire departments response capabilities, but as the City grows in area mass, it will affect the need for future a fire station to meet adequate response times.

2.8 TRANSPORTATION

2.8.1 Transportation

A significant amount of vehicles pass through the center of Camrose each day on Highway 13. The volume and type of traffic presents a significant challenge for Camrose Fire Department and the statistical analysis contained in this report quantifies the impact that responding to Motor Vehicle Collisions (MVC) has on the emergency response system.

In addition to Highway 13, the CP and CN rail lines run directly through the City, less than 100 meters from residential and commercial properties transporting a variety of loads, including dangerous goods.

2.9 COMMUNITY RISKS

Camrose has the typical mix of residential, commercial/industrial, mercantile and institutional occupancies for a City with a population of over 18,000 people. The community profile on its own does not present an increased risk potential for the City. However, there are a number of factors that do present increased risks and should be considered as part of Camrose's emergency response system. These factors include:

- Residential construction types;
- Rate of growth and demographics;
- Industrial/commercial activities, and;
- Transportation.

2.9.1 Residential Construction

As the size of the average single family dwelling increases and the separation between the buildings continues to decrease, construction methods have lowered the efficiencies in terms of rescue and firefighting. Lightweight engineered wood construction products and other code compliant, but potentially hazardous, materials have also affected the level of risk. This imposes a new duty risk on Incident Commanders to

accurately assess attack modes on these newer houses which may, depending on their construction, pose a real threat to responding crews in terms of early floor separation and structural collapse. Many departments are identifying this type of construction as a risk in their Operating Guidelines and Pre-Fire Planning.

The increasing number of multi-family and apartment units also pose firefighting, rescue and recovery risk on the community for a number of reasons.

1. Fires in these types of occupancies can require significant resources to fight.
2. Even if confined to the unit of origin these incidents can displace a large number of people.

2.9.2 Rate of Growth and Demographics

By all indications the rate of growth for the City of Camrose is not a major concern, but we do have to be aware of the many different demographics within the City. As a result the following barriers have been identified;

- Challenges in communicating with individuals in various languages and from different cultural backgrounds
- Seniors due to their limited mobility and the number of seniors' located inside one complex.

2.9.3 Industrial/Commercial Risks

Camrose has a mix of light to medium commercial industry in various locations throughout the City and in several industrial and commercial parks. A mix of commercial and service industries/businesses are found throughout the City.

2.10 TRANSPORTATION CORRIDORS

There are three transportation corridors that create additional risk potential for the City of Camrose. Highway 13, CN and CP rail lines, all of which pass directly through the City. The following factors apply:

- Railcars containing a wide range of commodities including hazardous materials pass within 100 meters of residential and commercial areas of the City. While derailments and railcar accidents are not high occurrence events, they are high impact risks should an incident occur. There are 6 level crossings within the City that have the potential for a serious vehicle and rail accident;
- The volume of traffic and changing road conditions due to local climate result in an increased number of MVC responses;
- Similar to the rail corridor, Highway 13 usage includes the transportation of a wide range of commodities including hazardous materials. Camrose Fire Department and the surrounding fire services have a very limited capacity to deal with a major event. Reliance is placed upon Alberta Emergency Management Agency (AEMA) to obtain and deploy hazardous material response teams in order to mitigate this type of incident. The volumes of

dangerous goods combined with the close proximity to populated areas within the City are significant risks; and

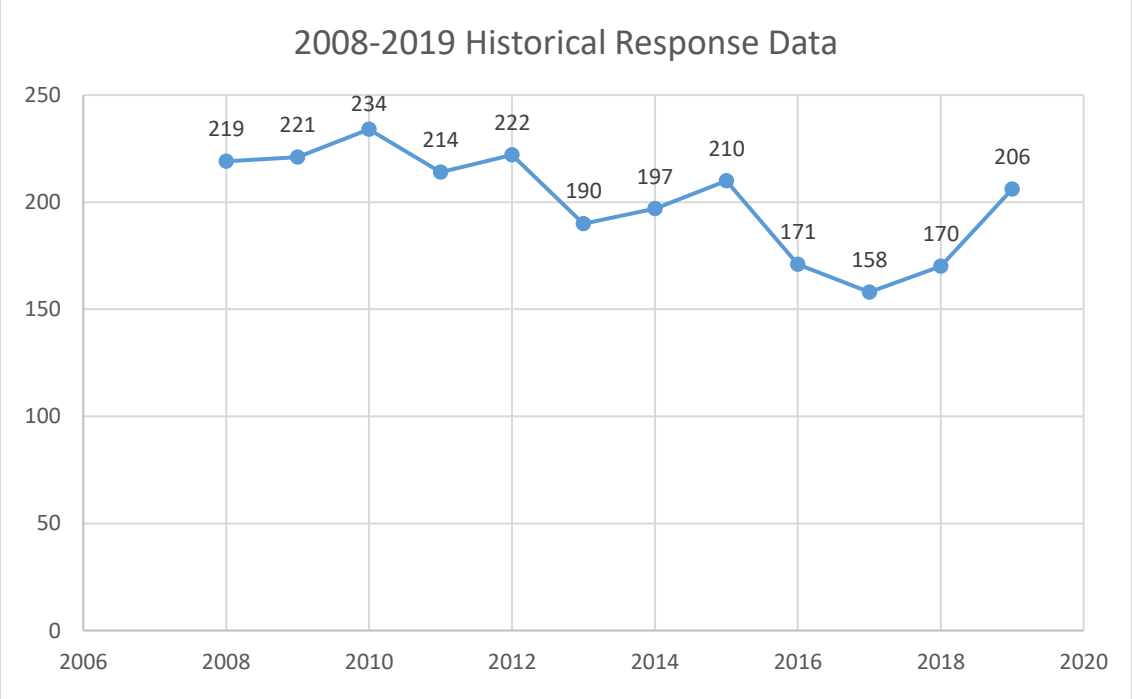
- Highway 13 and the CP rail line divides the City into north and south sectors. This creates a response time risk for emergency vehicles traveling from one sector to the other. Emergency response routes are limited. This restriction will protract response times for major incidents or events that require additional resources.

2.11 STATISTICS

Statistics provide a valuable source of current risks and trends for the Camrose Fire Department. The types of calls and resources needed to deal with those emergency responses provide the starting point. After reviewing the incident calls for Camrose for the period of 2008 - 2018, the majority of the calls fall into six broad categories:

- Emergency Medical Assistance;
- Motor Vehicle Collision (MVC);
- Investigate Fire Alarms;
- Fires (all categories);
- Hazmat (dangerous goods including natural disasters); and
- Miscellaneous (explosions, standbys, smoke odors, etc).

2.11 Historical Response Data # Responses



2.12 INTERVENTION TIME

Intervention time is defined as the time between the fire department receiving notification of an emergency until assistance commences at the scene of the emergency. Presently the intervention time for Camrose Fire Department is approximately 16 minutes. Response travel time is primarily a function of the distance from the station to the incident which could be modified by various factors such as, but not limited to:

- the layout and footprint of the community (route widths and alternatives);
- impediments such as weather or time of day (traffic), and;
- Transportation system (including roadways, underpasses, railway, major highways, construction road surface, detours, etc.).

Increased intervention time can have two significant impacts to an owner: Higher insurance premiums and increased loss in the event of an emergency.

Intervention Time

Time Values

Notification		**Intervention Time**			
Discovery	Emergency Call	Dispatch Time	Assembly or Chute Time	Travel Time	Set-up
Time unknown		90 sec	60 sec (medical) 80 sec (fire)	4 min	May vary by event.
Time indirectly manageable		*Time directly manageable*			

Reflex Time

The fire department shall establish a performance objective of having an alarm processing time of not more than 60 seconds for at least 90 percent of the alarms and not more than 90 seconds for at least 99 percent of the alarms, as specified by NFPA 1710.

- **Discovery**: This is the time between the start of the emergency and when a person or an engineered system has detected the incident.
- **Emergency Call**: This is the period of time between discovery and the actual notification of emergency services. The initial call is taken at the 911.
- **Dispatch Time**: This is the time required to extract the necessary information from the caller to allow the proper response to be initiated. The Dispatcher identifies the correct fire location and initiates the dispatch by paging the Camrose Fire Department.
- **Assembly Time (Chute Time)**: This is the time from when the notification sounds in the fire station or other emergency facility until the first vehicle leaves the station. In a full time department this is expected to be within 80 seconds but for volunteer departments the time to collect a response crew can vary widely depending on location and time of emergency as well as all the factors that impact travel time. Presently our chute time averages approximately 9 minutes.

- **Travel Time**: Once a vehicle leaves the station, it must negotiate the best route between that point and the location of the emergency. Factors to consider for travel time are driver skill, weather, traffic, topography, road conditions and vehicle capabilities. Presently our average travel time is approximately 7 minutes.
- **Setup Time**: This is the time it takes (on site) to evaluate the necessary actions, position the required resources, and commence the intervention. In the case of a fire, completing size-up, assigning the necessary tasks and deploying resources can provide delays on scene. A well-trained crew can minimize these delays while providing a safe, successful response.

2.13 THEORETICAL RESPONSE TIME

Intervention times are directly influenced by the type of service being provided to a community such as having a full-time staffed station versus a paid on-call volunteer station, location of the stations and how many there are. Basically there are only two areas in the intervention time line that can be changed and that is the Assembly Time (Chute Time) and the response times. Presently the CFD has an assembly time of 9 minutes and a response time of 7 minutes giving an intervention time of approximately16 minutes. The assembly time for CFD is directly related to the ability of the firefighters receiving the alarm to respond to the station from where ever he/she may be located in the City at the time (work or home). The only way to change this time would be to have firefighters stationed at the hall at all times ready to respond. The second time is the response from station to scene, this time can only be changed based on the location of the fire station or future stations to allow for a response from the station to anywhere in the community in under 5 minutes, such as a potential future second station on north side of Camrose.

3. PROGRAMS AND SERVICES

3.1. MISSION AND GOALS

The services, activities and responses provided by Camrose Fire Department are designed, organized and operated in compliance with the City of Camrose's mission statement as adopted by CFD. The key elements of evaluating these organized services determine the various levels of adequacy, deficiency, effectiveness, methods and results of programs.

3.1.1. Operating Principles

The principles listed below provided the guidelines for evaluating the current service delivery provided by CFD:

1. Provide appropriate leadership;
2. Respect limitations;
3. Promote team function – partnerships, and;
4. Adopt a pro-active approach to:
    - Examine new technologies and ideas;
    - Examine and define risks consistently and regularly;
    - Redesign responses as necessary;
    - Anticipate the unexpected;
    - Create and sustain a learning environment;
    - Encourage participation at all levels;
    - Encourage a free flow of communication and feedback, and;
    - Create an environment that allows mistakes but does not tolerate negligence.

3.2. CORE SERVICES

The role of a fire department remain consistent in protection of life, property and the environment. Camrose Fire Department's principal functions include:

- Fire prevention including public education, fire inspections and investigations;
- Fire suppression and emergency response including rescue services;
- Firefighting equipment testing and basic maintenance;
- Firefighter training, and;
- Medical co-response

Outside of the principal functions, the department also provides the following services:

- Development and plans review;
- Pre-fire and tactical planning, and;
- Emergency planning.

3.3. OPERATING PRINCIPLES

3.3.1. Firefighting – Structural

CFD has the response capability to handle a basic single family dwelling fire provided they arrive before the fire has extended beyond the object or room of origin. The increasing growth of Camrose will affect the ability to mount an effective response to larger or multi-incident events as it will challenge the department's resources due to increasing call volumes, locations and complexity of the event(s). As the number of calls increase, the risk of concurrent or sequential emergencies becomes greater. In the event that the on-duty crew is already engaged, mustering a timely second response could require augmentation from other jurisdictions.

3.3.2. Firefighting – Industrial

It is important that CFD play a primary role for industry to ensure there is adequate protection. Given the industrial growth potential this may pose the single greatest risk element for CFD and due in part to their proximity to the community and fire services.

3.3.3. Firefighting – Wildland Urban Interface

Wildland firefighting remains a concern as the City has numerous parks and Urban/Wildland interface areas that they protect, along with support to rural municipalities. CFD has an excellent reputation in dealing with these incidents, but maintaining a liaison with neighboring communities and partners is vital as these fires are characterized by their duration and the number of firefighters required in controlling them, as well as the proximity of suppression resources to the incident.

3.3.4. Hazmat Response

Life safety and the environment remain the primary focus of a hazmat response. The financial investment in training and equipment needs to be considered and meet one of two levels of hazardous materials response as identified in NFPA 472.

- The first is an operations level of awareness that provides the emergency response crews with the ability to operate at a basic level of response to incidents. This level is primarily a defensive operation where crews may limit the spread of the leaking materials by diking and damming the flows. It does not involve donning protective suits or decontamination.
- The second level is a more advanced response that requires a considerable higher level of technical training and equipment. This level would be called a 'technician level' with crews donning protective suits and entering the hot zone to stop the flow of the product. It also requires the establishment of a decontamination zone for the responders and equipment. Given the required resources both from the people and equipment perspective it is recommended that this commitment not be considered when developing the service levels.

It would be wise for CFD to look at where such incidents would have an impact. As industrial activity and transportation in the community grows, this may be an opportunity to strengthen and form new partnerships for Hazmat response. The goals of such partnerships remain the safety of firefighters and public, not revenue generation or allowing industry to transfer the risk to the municipality, which most responsible industries will not do.

3.3.5. Technical Rescue

Currently the department has the ability to respond to numerous types of specialized rescues such as;

- Vehicle extrication;
- Surface water rescue;
- Surface ice rescue; and
- High & Low Angle Rope Rescues

These specialized areas each require extensive equipment and training that needs to be maintained regularly to ensure the readiness in the event of an emergency.

3.3.6 Medical Co-Response

CFD currently requires all members to be trained medically. This enables the department to provide a higher level of care to the public as First Responders when requested. Being able to provide medical care at all emergencies while working alongside Alberta Health Services will enhance the level of service to the community.

3.4. LEVEL OF SERVICE

3.4.1. Industry Standard

The most widely accepted standards for the fire service is NFPA[1]. Several decades of scientific research has resulted in NFPA establishing an industry benchmark. The full use of industry standards, such as NFPA, does limit the municipality's flexibility to develop levels of service based upon local conditions and economic realities. Using these standards as a guide along with Alberta's Code of Practice for Firefighters[2] can allow the City of Camrose to establish levels of service that optimize firefighter and public safety and balance economic and financial realities.

NFPA has done considerable research in selecting the recommended standards and reflects the value to life safety for arriving quickly at emergencies. The standard that may be considered is the NFPA 1710 Standard for the Organization

[1] NFPA (National Fire Protection Association) is the world's leading advocate of fire prevention and an authoritative source on public safety. NFPA develops, publishes, and disseminates more than 300 consensus codes and standards intended to minimize the possibility and effects of fire and other risks. www.nfpa.org

[2] A Code of Practice for Firefighters, Application of Alberta's Occupational Health and Safety Code 2006 to Emergency Operations of the Fire Service in Alberta © 2007

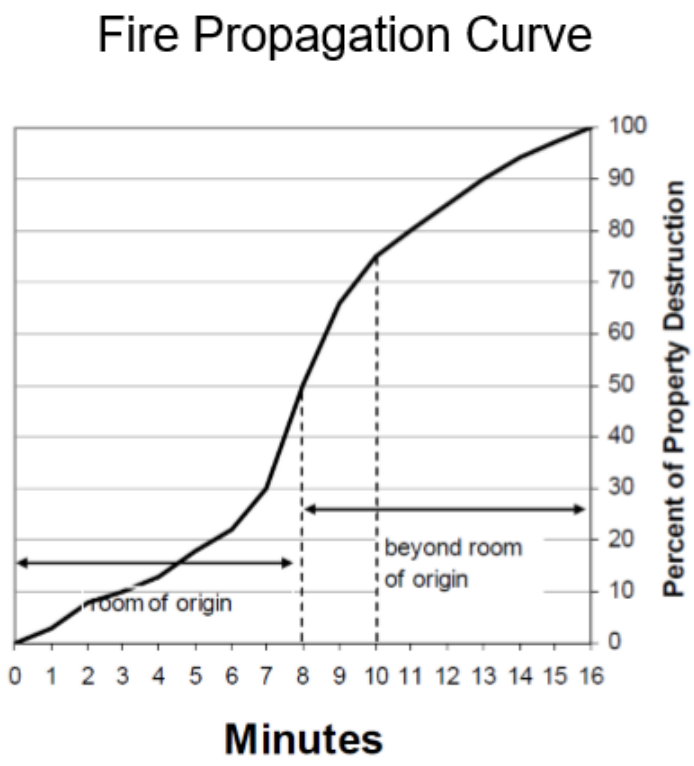
and Deployment of Fire Suppression Operations by Career Fire Departments[3]. This document provides clear performance standards for departments to ensure effective measurement and reporting of CFD's activities.

Alternatively, a municipality may choose to develop a performance standard based on their organizational capacity and economic conditions. This type of performance standard is acceptable as there is no legislated or regulated obligation for a community to have a fire service in Alberta. The responsibility to understand community expectations rests with City Council and through the budgetary process to determine what investment they are prepared to allocate to the safety of the community. The senior management team and CFD administration are tasked with developing cost models for the performance levels as agreed to by City Council. Within the limits of reasonable costs, most municipalities are capable to develop reasonable standards that minimize and manage risk to people, property and the environment. The following NFPA excerpts have been used to guide the recommended staffing levels for CFD:

Part I – Fire Propagation Curve (NFPA 1710)

A.5.2.1.2.1 *an early aggressive and offensive primary interior attack on a working fire, where feasible, is usually the most effective strategy to reduce loss of lives and property damage. In Figure A.5.2.1.2.1 the line represents a rate of fire propagation, which combines temperature rise and time. It roughly corresponds to the percentage of property destruction. At approximately 10 minutes into the fire sequence, the hypothetical room of origin flashes over. Extension outside the room begins at this point. Consequently, given that the progression of a structural fire to the point of flashover (i.e. the very rapid spreading of the fire due to superheating of room contents and other combustibles) generally occurs in less than 10 minutes.* ***Two of the most important elements in limiting fire spread are the quick arrival of sufficient numbers of personnel and equipment to attack and extinguish the fire as close to the point of its origin as possible.*** *The ability of adequate fire suppression forces to greatly influence the outcome of a structural fire is undeniable and predictable. Data generated by NFPA provides empirical data that rapid and aggressive interior attack can substantially reduce the human and property losses associated with structural fires (See Table 1).*

[3] NFPA 1710-2010: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the public by Career Fire Departments, Copyright © 2010



Fire Extension in Residential Fires

	Rate per 1000 Fires		
Extension	**Civilian Deaths**	**Civilian Injuries**	**Dollar Loss per Fire**
Confined to room of origin	*2.32*	*34.19*	*3,185*
Beyond the room but confined to the floor of origin	*19.68*	*96.86*	*22,729*
Beyond the floor of origin	*26.54*	*63.48*	*31,912*
***Note:** Residential structures include dwellings, duplexes, manufactured homes (also called mobile homes), apartments, row houses, townhouses, hotels and motels, dormitories, and barracks.* ***Source:** NFPA Annual Fire Experience Survey and National Fire Incident Reporting System.*			

3.5. FIREFIGHTER SAFETY AND CODE OF PRACTICE[4]

In 2006, the Alberta Municipal Affairs and Housing, Alberta Fire Commissioner's Office and Employment, Immigration and Industry Workplace Health and Safety Ministry staff developed an information bulletin that clarified the responsibilities of an employer in providing a safe work environment for its emergency operations of the fire service. This document explains several areas of the Occupational Health and Safety Code of Alberta

[4] A Code of Practice for Firefighters, Application of Alberta's Occupational Health and Safety Code 2006 to Emergency Operations of the Fire Service in Alberta © 2007 (See Appendix C)

and what the expectations are for the Municipality or Employer with respect to setting a clear understanding of what services CFD will provide and to what standard.

The Government of Alberta has prescribed minimum standards to which a fire service must comply with regards to Occupational Health and Safety. Part 2 in the code outlines the planning process to ensure safety for firefighters and efficiency of operation.

> *Part 2: Hazard Assessment, Elimination and Control*
>
> *(1) Each employer must determine exactly what emergency service(s) the fire department will be authorized to provide and identify the level or standard to which each service will be performed. This includes response to structural fires, Wildland fires, and various rescue situations including technical rescue, dangerous goods and chemical, biological, radiological and nuclear (CBRN) incidents among others.*
>
> *(2) Once these decisions have been made, this service level determination is usually committed to writing in the form of a bylaw, policy or guideline. The employer must then clearly communicate to firefighters what is expected from them as workers when responses are made. The means of communicating and maintaining this information is through the collection of guidelines, (commonly referred to as standard operating procedures, or guidelines (SOPs or SOGs) and policies which describe the authorized activities of the fire service and how the activities are to be performed as required by (1) above. These documents form the basis of the written plan.*

Key points that become relevant to levels of service for CFD are the current staffing resources and understanding limitations of resources needed to safely and effectively manage the event. The Alberta Code of Practice for Fire Fighters clearly outline the requirements that firefighters must have appropriate policies and guidelines of what resources will be deployed to an emergency incident.

> *(3) The guidelines and policies required in (2) must include:*
>
> *a) identification of the standard firefighting functions or evolutions expected of firefighters based on the emergency services to be offered, including functions or evolutions that must be performed simultaneously;*
> *b) the minimum number of firefighters required to safely perform each identified firefighting function or evolution;*
> *c) the specific worker safety rules, procedures and first aid and medical attention services for firefighters to be followed at each type of emergency incident;*
> *d) the number and types of firefighting vehicles, equipment and firefighters required for the initial response to each type of emergency incident to which firefighters might reasonably be expected to respond. This includes policies or procedures to be followed when minimum staffing or equipment levels cannot be met;*

e) *a guideline or policy on the minimum training a firefighter must be given before being considered competent to perform certain emergency operation functions identified above;*
f) *a detailed description of the incident management system to be followed at an emergency incident, and;*
g) *a detailed description of the personnel accountability system to be used at each emergency incident.*

While not applicable to the Province of Alberta, British Columbia's WorkSafe BC Occupational Safety Standard Part 31 also provides a comparative safety regulation that restricts interior fire suppression operations within the following conditions:

31.23 Entry into buildings

(1) When self-contained breathing apparatus must be used to enter a building, or similar enclosed location, the entry must be made by a team of at least 2 firefighters.

(2) Effective voice communication must be maintained between firefighters inside and outside the enclosed location.

(3) During the initial attack stages of an incident at least one firefighter must remain outside.

(4) A suitably equipped rescue team of at least 2 firefighters must be established on the scene before sending in a second entry team and not more than 10 minutes after the initial attack.

(5) The rescue team required by subsection (4) must not engage in any duties that limit their ability to make a prompt response to rescue an endangered firefighter while interior structural firefighting is being conducted.

3.6. COMMUNITY SERVICE CONSIDERATIONS

CFD continues to be very active within the City with fire prevention, education and, health and safety. Camrose is an accredited agency authorized to administer the Alberta's Safety Codes Act within their jurisdiction. A Quality Management Program (QMP) has been established and is audited by the Safety Codes Council annually. This includes permit issuance, plans examinations, site inspections, issuing variances, orders, verification of compliance, identification and follow up of deficiencies and unsafe conditions, issuance of permit services reports and maintaining files and records. In addition, CFD delivers Fire Prevention Programs to provide public awareness and consultative services for individuals, business and industry.

As CFD continues to experience an increase in emergency response, the overall community involvement will be impacted. Fire prevention and education with the involvement of a supportive community has a proven record of success for all parties involved and cannot afford to be overlooked. Unfortunately, when faced with an emergency, fire prevention tasks must be a second priority. To date, the department has

managed to maintain the fire prevention schedule and achieve the objectives in the QMP but this cannot be guaranteed into the future. Regular review of the schedule and workload will indicate when additional staffing should be considered to support fire prevention activities.

At the time this report was being developed the City of Camrose, the Emergency Service QMP, dated 1998, was under review by the Fire Chief and the City's Building Department. Enhancements recommended in the draft 2020 QMP, such as service delivery standards and formal Fire Prevention Programs, are supported. It is important to note that CFD has been meeting the objectives of the current QMP.

Additionally, aggressive fire inspection and education programs for all commercial, public facilities, and industrial facilities would be a method to reduce high risk events. The implementation of residential fire sprinklers for all future developments to minimize the requirement of resources and provide for greater flexibility in response times should be considered.

3.6.1. Fire Prevention Program

Fire prevention is divided into four major categories: Enforcement, Education, Engineering, and Investigation. Jurisdictions put different priorities on these categories depending on their risks, experience and resources.

3.6.1.1. Enforcement

CFD conducts annual inspections of industrial and multi-residential properties. The programs provided are as follows:

- Inspection services;
- Enforcement services;
- Statistical collection and analysis; and
- Public/Media release services.

3.6.1.2. Public Education Program

CFD has identified that the benefits of fire safety education exceed the costs of delivering the programs. It is the department's goal to partner with the public for the public's benefit and safety. The programs provided are as follows:

- School programs services;
- Fire prevention and public education;
- Education and training services;
- Fire Prevention Week programs;
- Prevention messages; and
- Mascots/sponsors/commercial sponsors

3.6.1.3. Engineering

A partnership between CFD and the Engineering department needs to be enhanced. The importance of these two departments working together is

vital to the requirements for fire suppression activities by the fire department. Both departments must have knowledge of the water supply and demand requirements for all areas. This ensures the Fire Department is aware of supply availability while allowing upgrades to be pre-planned by the Engineering department to meet current and future demands.

Fire hydrants are flushed by the City's Public Works department. Hydrant flow data is provided to CFD by Public Works for the purpose of pre-fire planning. At present, the water distribution system is considered adequate within City limits with rural response requiring tanker operations to support fire suppression operations.

3.6.1.4. Fire Investigation Program

Currently CFD requires operations staff to obtain a Safety Codes Officer (SCO) certification for investigation/Inspection purposes and has two (2) Level 1 Investigators and two (2) Level 2 Investigators that investigate any dollar loss fires.

4. RESOURCES

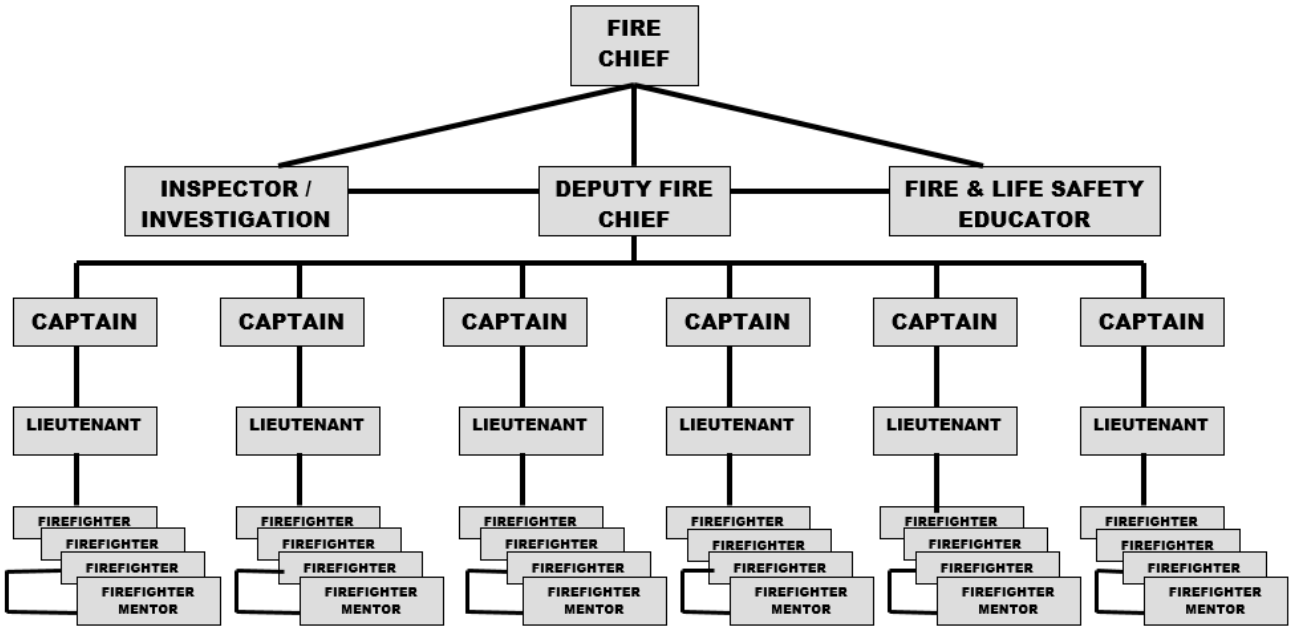
4.1. HUMAN RESOURCES

The services, activities and responses provided by CFD are designed, organized and operated in compliance with the City's bylaws, goals and objectives and are clearly aligned with the City's mission statement. Human resources include all aspects of department personnel. The heart of any organization is its people. CFD's current structure consists of the following:

- Full Time Personnel
  - Fire Chief
  - Deputy Chief (Operations and Training)
  - 2 Community Safety Officers (Inspections, Investigations, and Public Education)
  - 1 Administrative Assistant (2 of a full-time position)
- Paid On Call Volunteer Personnel
  - 6 Captains
  - 6 Lieutenants
  - 24 Firefighters

Operations consist of 3 crews of 12 personnel currently working out of the 1 station.

Fire Department Organizational Chart



4.2. Recruitment, Selection, Retention and Promotion

For each competition, a selection committee conducts the selection process and decides upon the successful candidate(s). Selection is based upon an interview of candidates possessing required qualifications.

Career planning is available to all staff with consideration of short and long-term goals with the department's goals and objectives in mind. Performance Evaluations and Career Planning sessions should be held annually, at a minimum, with the emphasis on the members' career goals and performance analysis. CFD supports employees pursuing their potential during their career.

CFD has had a low turn-over rate with the fulltime members. Replacement on retirement can be planned well in advance but early departures means a gap that must be filled by remaining personnel until a suitable replacement can be found and trained as required. Currently, there are three full time member's eligible for retirements within CFD in the next few years.

4.2.1. Personnel Policies and Procedures

There are documented personnel policies and procedures guiding both administrative and personnel behavior. A complete and detailed description of the policies and procedures can be found in the department's Operating Guidelines, City Policies.

4.3. Training

Training and competency refer to the specific programs, resources and capabilities of the personnel within a fire department which exist to support the services provided. Training and educational resource programs express the philosophy of the organization they serve and are central to its mission. Learning resources should include a library, other collections of materials that support teaching and learning, instructional methodologies and technologies, support services, distribution and maintenance systems for equipment and materials, instructional information systems, such as computers and software, telecommunications, other audio visual media and the facilities to utilize such equipment and services.

Central to success of the training and educational process is a learning resources organizational structure and a technically proficient support staff. The training division should provide services that encourage and stimulate competency, innovation, and increased effectiveness. The adequacy of a system's successes should be judged in terms of its goals, objectives, and programs supporting the organization in achieving its mission.

Training and education program activities are identified to support the fire department's needs. Training reflects the department's Standard Operating Guidelines and/or Procedures with skills that the firefighters are expected to perform. Ensuring that members are competent in handling tools, scene safety, and driving will ensure not only their safety but the safety of the public that they serve, reducing the risk to all involved.

4.3.1. Training Requirements

A firefighter position with CFD is clearly defined as having the following minimum educational requirements and certifications:

- High School Diploma

In addition to the above, the following certifications have to be obtained during employment with CFD:

- Valid Alberta Driver's License in good standing(record);
- ICS 100;
- NFPA 1001 Level 1 & 2 Firefighter;
- EMR *(recommended*); and
- Water Tender Operator *(recommended).*

An Officer position with the rank of Lieutenant will require all of the above and the following:

- NFPA 1002 Standard for Fire Apparatus Driver/Operator Qualifications;
- ICS 200;
- NFPA 1021 Level 1 Fire Officer or equivalent;
- NFPA 1051 Level 1 Wildland Firefighter or equivalent; and
- Specialty Bronto Aerial Operator

A Captain rank will encompass all of the above qualifications and:

- 5 years of operational experience (*recommended);*
- ICS 300;
- NFPA 1021 Level 2 Fire Officer or equivalent;
- Safety Codes Officer Level 1 Inspector *(recommended);*
- Safety Codes Officer Level 1 Investigator *(recommended);*
- NFPA 1041 Level 1 Training Educator or equivalent *(recommended)*; and
- Public Life Safety Educational Training *(recommended*).

The Deputy Chief position include all of requirements of a Captain position and the following:

- 5-10 years of operational experience (*recommended);*
- Emergency Preparedness course;
- ICS 400;
- First Aid / CPR Instructor;
- NFPA 1041 Level 2 Training Educator or equivalent;
- NFPA 1006 Rope Rescue Technician;
- Supervisory Citation Course; and
- FOIP training *(recommended*).

The Fire Chief position includes all of the requirements of a Deputy Chief

4.3.2. Training of Firefighters

From the Code of Practice for Firefighters (May 2007):

Training of firefighters is addressed in Part 1 of the OHS Code under the definition of “competent” and in section 15 of the OHS Regulation under ‘safety training’.

Three characteristics are used to describe a worker as competent: (see OHS Code Explanation Guide for more detail)

1) Adequately qualified;
2) Suitably trained, and;
3) With sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

The required training provided to a firefighter must:

a) Be provided before the firefighter is allowed to engage in emergency operations, except for on-the-job training assignments conducted under close supervision;
b) Be provided by competent persons. (A competent person includes a person who has expertise or abilities in subject areas whether or not the person is a member of a fire department);
c) Address occupational health and safety hazards associated with each of the operational assignments;
d) Match the duties, functions and role that the firefighter is expected to perform;
e) Address procedures required to perform operational assignments including sudden changes in conditions;
f) Address the incident management system and personnel accountability systems used by the fire department, and;
g) Address the safe operation of equipment that is required to perform the operational assignments.

4.3.3. Training and Education Program Performance

Training and education programs are provided to support the fire department’s needs and employee career goals. Annual employee evaluations are conducted to ensure that employees are moving toward their career objectives by providing training and education opportunities.

4.3.4. Fire Prevention

CFD conducts inspections of multi-residential and industrial properties. Full time members of the department are required to possess Safety Codes Officer (SCO) certification for inspections purposes.

While it is difficult to measure the success rates of such programs, an indication of the department’s ability to work with the community in preventing fires can be

recognized through statistics such as records of property saved within the past 10 years.

4.4. PHYSICAL RESOURCES

Physical resources refer to the fire hall, training facilities, fire apparatus and other capital expenditures and outlays that make up the property assets of a fire department. Special attention is required to obtain and maintain appropriate quality and reliable physical resources.

4.4.1. Fire Hall

This facility, located at 201 Mount Pleasant Drive, was built in 2007. This location is Fire Headquarters and the primary Emergency Coordination Center (ECC). The Police Station is now designated as the backup ECC.

4.5. APPARATUS AND OTHER EQUIPMENT

The following represents the current equipment and apparatus compliment of CFD.

2019 Pierce Custom 6000 Litre/Minute Pumper (# 219)

2010 Rosenbauer Custom 6000 Litre/Min Pumper (# 200)

1999 GMC Superior 6000 Litre/min Pumper (# 205)

2013 Rosenbauer Custom Rescue Truck (# 209)

2004 E-One Bronto 6000 Litre/Min Pump & Rescue Ladder Platform Truck (#214)

2018 Chev one-ton 4x4 Bush Truck-1350 Litre water/foam tank (# 212)

2003 Ford one-ton 4x4 Bush Truck-1350 Litre water/foam tank (# 204)

2003 Zodiac Rescue Boat (# 203)

2009 Kawasaki Side by Side off road Vehicle (#210)

2015 Can Am Quad off Road Vehicle (# 206)

2016 Dodge Ram ¾ Ton 4x4 Support Vehicle (# 218)

Speciality Rescue Trailer

2009 Ford Exhibition Fire Investigation Unit (# 201)

2015 Dodge Caravan – Fire Prevention Vehicle (# 217)

2015 Dodge Durango – Fire Chief's Vehicle (# 211)

OWNED by CAMROSE COUNTY

2006 International 6000 Litre/min Pumper (# 215)

4.5.1. Apparatus Maintenance

The inspection, testing, preventive maintenance, replacement schedule and emergency repair of all apparatus, is well established within the department and meets the needs for service and reliability of emergency apparatus. It is recommended that the City of Camrose follows Underwriters Laboratories of Canada CAN/ULC-S515-M88 Standard for Automobile Fire Apparatus. Apparatus should be kept on first alarm response duty for the first 15 years of service, retired to reserve status for 5 years, then retired from service altogether

4.5.2. Tools and Small Equipment

Equipment resources are current, adequate and designed and maintained to meet the department's current core service, goals and objectives.

4.5.3. Safety Equipment

Safety equipment is current, and designed to meet the fire department's goals and objectives. SCBA and PPE gear should be set up in a replacement program to keep with the changing times and technology.

4.5.4. Physical Resources Plan

Development and use of physical resources is consistent with the fire department's established plans. A systematic and planned approach to the future development of facilities such as a fire station located in the north side of the City is in place.

4.6. COMMUNICATION SYSTEM

Service calls are processed through the City of Camrose Police Dispatch which effectively categorizes the 911 caller's emergency and aligns the appropriate emergency resource to best meet the needs of the caller. This process is extremely effective in assisting the department in building pre-determined responses for apparatus and staffing resources to best manage an emergency event.

In the future CFD hopes to include a digital radio communications system with the potential movement towards a provincially based system such as AFFRAC's and also using Mobile Data Terminals (MDT) inside the apparatus and command units. MDT units are used for communication purposes and can also display pertinent information such as mapping and other data.

4.7. EXTERNAL RESOURCES AND PARTNERSHIPS

CFD has been supplemented by City of Wetaskiwin fire services during several major events. This assistance has been provided under mutual assistance programs and the frequency has been intermittent over the past few years.

The reliance on this additional mutual assistance support needs to be reviewed as it will likely become more frequent over time with increasing calls for services. It is anticipated the City of Wetaskiwin will need to consider the impacts on its municipality and the

volunteers that are serving the department and the gap in funding and resources that are serving another municipality.

The long term dependence on using a neighboring community's resources is bound to come to end for the simple fact that the rational for mutual aid/assistance agreements are primarily based on major emergencies and infrequent calls for assistance. If CFD's intent is to rely on the services from other municipalities for all major fires or emergencies then a proper contract for services should be considered to fairly compensate the risk placed onto these municipalities. This would include the understanding that when those resources from another municipality were called they may also be needed in the community for an emergency incident.

During the development of this plan we conducted an engagement session with employees from the Camrose County regional fire departments (Round Hill, Bashaw, New Norway, Edberg, Rosalind and Bawlf) to discuss the future of the Fire Service in the region. A major outcome from this session was the opportunity for all services to come together to support each other with an approach of creating a regional type Fire service between the City of Camrose and our regional partners within the county of Camrose. See Appendix A & B

(Recommendations 5)

Review Mutual Aid Agreements with all external stakeholders and partners to determine ongoing support and assistance
Reference: External Resources & Partnerships, Section 4.7 Page 44

(Recommendations 12)

Consider the regionalization of the fire service between the City of Camrose and the small fire departments within Camrose County. Consider starting with County run departments (Round Hill & New Norway) first then branching off to include the others at a later date.
Reference: External Resources & Partnerships, Section 4.7 Page 45

4.8. WATER SUPPLY AND DISTRIBUTION

Please reference the current City of Camrose Water Master Plan. The City has an excellent water distribution system and is more than adequate for fire department operations. It has been identified that the water supply in Victoria Park's west end has low pressure as this is a dead end line because the only feed is from 54 Street. There is a line just at the Railway crossing at 68th Street that should be tied into the west end Victoria Park to create a loop system and adequate water supply. Continued communications between the Utilities, Engineering and Planning and Development departments and the Fire Service needs to be maintained for the future of identifying hydrant location as the community grows.

5. DISCUSSION AND GAP ANALYSIS

5.1. Risks

The major changes in risk are a result of the growth of the City. The fire department is faced with increased response distance over larger areas as the City boundary expands. Changes in construction and materials provide additional risks that must be faced by responding personnel.

(Recommendation # 1)
Build a high level of coordination between the City's Planning and Development Department and the CFD to ensure the emergency response service levels keeps pace with the rate of development.
Reference: Risks, Section 5.1 Page 46

5.2. Response

The current emergency response capabilities of 36 firefighters and 4 Full-time Staff is adequate to deal with low to moderate risks with supporting resources from other communities support through mutual aid.

Based upon the analysis in this report the minimum duty strength of 45 staff provides a more efficient emergency response that manages the typical calls for service within the low to moderate risks. There will be less reliance on supporting resources from other communities support through mutual aid.

The types of emergency events that would stretch CFD capabilities are those incidents that occur during daytime hours when most volunteers are at their employment and unable to respond and during the weekends when members are out of town. Longer in duration incidents and those that involve specialized operational procedures such as hazardous materials or a complex rescue situation will stretch the CFD capabilities.

5.3. Response History

The development of service level standards includes assessing the current community risks and emergency response resource capability to effectively control and mitigate damage to life and property. It is important to note that levels of service are directly linked to the staffing model. There are several basic categories of call types that have been identified by historical call data for CFD which assist in building the basis for service level evaluation. These events require a minimal number of staff who are trained and equipped with the appropriate tools to be safe and effective at completing their tasks. The basic categories of call types have been identified as:

- Emergency medical assistance;
- Motor Vehicle Collision (MVC);
- Investigate fire alarms;
- Fires (all categories);
- Rescue;

- Hazmat (dangerous goods including natural gas), and;
- Miscellaneous (explosions, alarm activations, smoke odors etc.).

Through the evaluation of the current level of response for the typical daily demands for service, CFD administration and key stakeholders such as City Council and senior municipal managers can make informed decisions on what level of service CFD is capable of performing safely and effectively. To achieve a consensus to what is an appropriate level of service standard there must be commitment from all stakeholders to participate in understanding the risk and being open to recognizing the need for safe and effective response. This may include alternative risk management strategies and/or providing clear information to the public about services offered by the City and associated costs.

The information provided during CFD stakeholder interviews indicated that the current response capacity can reasonably mitigate a single family residential fire, providing interior fire attack intervention occurs when the fire is confined to the object or room of origin. Fires that extend beyond the building of origin and expose adjacent structures to fire will overwhelm the current response capacity. This assessment was based upon recent fires that extended beyond the structure of origin. There are several factors to be considered and these were discussed in the Industry Standards section of this report.

(Recommendation # 2)
Continue to maintain a core group of Paid on call Volunteer firefighters (45) with the considerations of adding 2 more full time staff to meet the needs of having one truck crew able to respond during the Monday – Friday daytime responses. Implement a year round weekend on call duty system to ensure adequate coverage is available year round to respond to weekend calls.
Reference: Response & Response History, Sections 5.2, 5.3, Pages 46 - 48

Phase 1 – Continue to maintain a core group of Paid on Call Volunteer firefighters. To meet response capabilities for weekends consider expanding on the on call duty system to year round to ensure weekend availability year round.
Phase 2 – Add two more additional full time staff to meet the needs of having one truck crew able to respond during the Monday-Friday daytime response.

5.4. Performance Standard

In comparison with other municipalities across Alberta, CFD's capabilities and resources align to the typical municipalities of similar size. The challenge to adjust for growth and increasing calls for service will cause the continued pressure on the City's budget to support the basic level of service.

The opportunity to outline the resources required for typical responses that Camrose is currently facing using the risk assessment tool identified in the previous section and the basic level of service matrix. Through analyzing the risks and creating the overview of

services, CFD can then identify gaps and areas for future focus or optional risk mitigation strategies. These levels of service descriptions can be modified to meet any requirement in managing calls for services that CFD is faced with in a typical year. By building a comprehensive task list of resources required to manage incidents, CFD can identify their target levels of service and performance measures.

The benefit of setting clear levels of service is that CFD can focus on the critical areas that are within scope and within the financial means of the municipality. Although there will be occasions that CFD will face incidents beyond the scope of their resources CFD will develop emergency plans to address these types incidents.

By establishing pre-determined levels of service, CFD can plan to deal with the exceptional incidents that they are able to effectively manage. This will minimize the long terms costs and challenges of sustaining the operational requirements for specialized response teams and equipment for high consequence, low probabilities risks.

(Recommendation # 6)
Develop clear service levels based on the Risk Assessment Tool and Critical Task Analysis in conjunction with City Council and Senior Administration from both the City of Camrose and CFD.
Reference: Performance Standard, Section 5.4, Page 47

5.5. Critical Tasks and Performance Standards

From an overall governance and strategic objective consider adopting an operational philosophy for CFD. In order to accomplish this, a review of the critical tasks to achieve the operational philosophy is required. An example of a philosophy could be;

"The Camrose Fire Department shall arrive in a timely manner with sufficient resources to stop the escalation of the fire by preventing flashover. Initial response resources shall be capable of initiating fire suppression and addressing life safety issues as needed, while providing for the safety of responders and the general public."

5.5.1. Critical Task Analysis

To effectively respond to an identified risk or risk level, it is necessary to have an understanding of what types of equipment and numbers of properly trained personnel are needed to mitigate each risk category for each service provided. This is accomplished through the critical task analysis process.[5]

Firefighter safety is the first priority at any incident or when delivering any type of service. The deployment of the appropriate number of firefighters increases the effectiveness of those firefighters in completing tasks and will maximize the safety

[5] Commission of Fire Accreditation, Standard of Coverage, 5th Edition

of all responding personnel. The responsibilities of the 'first in' apparatus and those of the initial deployment apparatus identified in critical tasking can also be defined as an Effective Response Force (ERF). The ERF is the minimum number of personnel that are required to manage an event and is necessary to minimize the loss of life and property as well as enhancing fire fighter safety.

Table 1: Low Risk (no exposures): Garbage, Vehicle, Grass, Investigate Alarm Activation

Initial Deployment	No. FF	Task Assignment	Notes
Engine or Ladder	4	Incident Command, safety, establish perimeter, pump operation, 2 FF with hand line, forcible entry, battery disconnect, product containment	
Total Personnel	**4**		

Table 2: Low Risk (no exposures): Shed, Detached Garage

Initial Deployment	No. FF	Task Assignment	Notes
Engine	4	Incident Command, safety, establish perimeter, engine operation, 2 FF with hand line, forcible entry.	
Engine or Ladder	4	Perimeter Control, safety, water supply, RIT.	
Total Personnel	**8**		

Table 3: Moderate Risk (with exposures): Grass/Wildland

Initial Deployment	No. FF	Task Assignment	Notes
Engine	4	Incident Command, safety, establish perimeter, engine operation, 2 FF with hand line, brooms.	
Wildland Unit	4	Suppression team	
Total Personnel	**8**		

Table 4: Special Risk: Hospital, Care Homes and Institutions

Initial Deployment	No. FF	Task Assignment	Notes
Two Engines	8	Incident Command, safety, establish perimeter, pump operation, search and rescue, 2 FF with hand line, forcible entry.	
Engine	4	Rapid Intervention Team.	
Ladder	4	Ventilation, utilities, laddering	
Engine	4	Search and Rescue and/or Evacuation.	
Incident Command and Chief Officer	2	Overall Incident Command, safety, accountability, resource management.	
Total Personnel	**22**		

Hazardous Materials Response

Currently CFD has a very limited capacity to respond and mitigate a hazardous materials incident beyond a small spill or product release. Moderate to large incidents may require assistance from Alberta Emergency Management Agency.

Table 5: Low Risk: Carbon Monoxide Alarm, small spill cleanup, investigates smell

Initial Deployment	No. FF	Task Assignment	Notes
Engine or Ladder	4	Incident Command, safety, establishes isolation perimeter, air monitoring, ventilation, or cleanup.	
Rescue	4	Cleanup or removal of hazard.	
Total Personnel	**8**		

Table 6: Moderate Risk: Small Quantity (<20ℓ) of known product (gasoline, anti-freeze), open space natural gas smell or odor from unknown source.

Initial Deployment	No. FF	Task Assignment	Notes
Engine	4	Site management and control, Identify problem.	
Rescue	4	• Hazard and risk evaluation • Selection of personal protective equipment • Information management and resource coordination • Implement response objectives • Decontamination and clean-up operations • Terminate the incident	
Chief Officer	1	Overall Incident Command, safety, accountability, resource management.	
Total Personnel	**9**		

Table 7: Special Risk: Quantities (>20ℓ) of known product (gasoline, anti-freeze), natural gas leak, indoor natural gas smell or odor.

Initial Deployment	No. FF	Task Assignment	Notes
Two Engine	8	Site management and control.	
Rescue	4	• Identify problem • Selection of personal protective equipment • Implement response objectives • Decontamination and clean-up operations • Terminate the incident	
Chief Officer	1	• Hazard and risk evaluation • Information management and resource coordination	
Total Personnel	**13**		

Emergency Medical Services

Since April 2011, CFD has participated in the Medical Co-Response Program with Alberta Health Services. Initial analysis of this program indicates that on average there are15 medical co-response calls per year. This is entirely manageable within CFD's current response capacity, however close monitoring should continue as the Medical Co-Response Program continues to evolve with CFD participation.

Table 8: Low Risk: EMS Assist

Initial Deployment	**No. FF**	**Task Assignment**	**Notes**
Engine	4	Incident Command, safety, patient packaging, lift and transfer	
Total Personnel	**4**		

Table 9: Moderate Risk: EMS Emergency, Vehicle vs. Pedestrian

Initial Deployment	**No. FF**	**Task Assignment**	**Notes**
Engine	4	Incident Command, safety, patient assessment, CPR, AED, oxygen, patient packaging, transfer	
Total Personnel	**4**		

Rescue Services Response

MVC calls and rescue services currently represent 20% of the total call volume. The majority of the MVC calls occur outside the City boundaries. The use of emergency response resources outside City boundaries increases the risk potential that coincidental (concurrent) emergencies will occur while the primary response units are deployed beyond an effective 2nd response.

Table 10: Moderate Risk: Motor Vehicle Crash (1-3 private vehicles)

Initial Deployment	**No. FF**	**Task Assignment**	**Notes**
Engine	4	Incident command and size-up, safety, establish perimeter, pump	

		operations, 2 FFs prepare hand line	
Rescue	4	Establish inner perimeter, triage patients, patient care, extrication, patient packaging	
Total Personnel	**8**		

Table 11: Moderate Risk: Surface Water, Swift Water or Ice Rescue

Initial Deployment	No. FF	Task Assignment	Notes
Engine	**4**	**Officer of first engine on scene assumes command, size up, scene safety and communications. 1 FF victim contact. 2 FFs shore rescue if possibly of Safety team or water rescue team activity.**	
Rescue	**4**	**Officer of rescue team is the sector officer, supervise and safety. 3 FF's prepare boat and/or equipment for rescue.**	
Total Personnel	**8**		

Table 12: Special Risk: Motor Vehicle Crash (large passenger vehicle(s))

Initial Deployment	No. FF	Task Assignment	Notes
Engine	4	Incident command and size-up, safety, establish outer perimeter, pump operations, 2 FF's prepare hand line.	
Engine and Ladder	4	Sector officer in charge of inner perimeter, triage patients, patient care, extrication, patient packaging.	
Rescue	4	Inner perimeter support, establish perimeter, triage patients, patient care, extrication, patient packaging	

Chief Officer	1	Overall Incident Command, safety accountability, resource management.	
Total Personnel	**13**		

Table 13: Special Risk: Confined Space or High Angle Rescue

Initial Deployment	No. FF	Task Assignment	Notes
Engine	4	Officer of first engine on scene assumes command, size up, scene safety and incident action plan, patient assessment	All staff re-assigned to safety and rescue sector once command is passed
Rescue and Ladder	6	Officer of first engine is Safety Officer. Officer of Rescue Sector Officer. Third officer and three FFs establish rigging team, one FF assigned edge person and two rescuers, two RIT. Haul/lower team established. Evacuate victim and transfer to EMS.	Rigging team reassigned to haul/lower team. Rescuers reassigned to evacuate and transfer
Chief Officer	1	Overall Incident Command, safety, accountability, resource management.	
Total Personnel	**11**		

5.6. Community Comparable

In comparison to other communities of similar population, the CFD staffing level is within the average of core staffing levels. In addition, there have been occasions where the current staffing level has been challenged during major fires. This has prompted CFD to request resources from other municipalities to assist.

See Appendix C

5.7. Bylaws

Camrose's Fire Bylaw No. 3069-19 provides a good foundation for the creation and operation of the fire department. The document provides enough detail for the fire service without having to be continually updated.

See Appendix D

5.8. Policies

The development of a fire department must be in response to the needs of the citizens in the community. Like any other service it must provide the expected level of service to stay in business. Unlike many services the need is not periodic or inevitable. Many citizens will never have to call on the services of their fire department but when the emergency occurs the expectations are high that the services will provide value for the taxes collected.

5.9. Standard Operation Guidelines (SOG)

SOGs and SOPs (Standard Operating Procedures) are operational directives prepared by the department that establishes a standard course of action for the fire fighter to respond. A fire department may perform any number of services, and to any level, based on the resources and technical expertise that the fire department has available. Council must determine exactly what services the fire department will provide and identify the level or standard to which each service will be performed. Once these decisions have been made it is necessary that the employer clearly communicates to the firefighters what is expected from them as employees. The means of communicating and maintaining this information is through a written plan comprised of guidelines, standard operating procedures, and policies.

5.10. Organization

The fire department needs a clear chain of command for successful operations. The current structure clearly reflects the culture and operational guidelines of the department.

5.11. Training

The current training levels address the current requirements for Occupational Health and Safety. Adjustments need to be made to better cover the training requirements for some areas identified by the statistics and risks outlined. The core competencies and specialty services for the City of Camrose are sufficient, as there are excellent records and training matrices to support the required SOGs.

The required amounts of training range from recruit training to team training. As recruiting of qualified personnel becomes more difficult, it will require departments to do even more training. Occupational Health and Safety has increased the formal requirements for training and records of that training to ensure workers have been qualified for all tasks assigned.

The ability to focus on a yearly training schedule, that meets the needs of the department, will ensure that members' competencies are current with NFPA Standards and Guidelines.

Recognizing the need for the development of training that encourages members to plan their future growth with the organization has been initiated within the last year. This will allow for the much needed succession planning and overall retention.

5.12. Special Operations/Technical Rescue

Every department must ensure that all members are provided the necessary tools and training to safely and efficiently perform the tasks required when an emergency arises. Specialized operations are an ongoing task that requires constant monitoring to ensure the equipment meets the necessary requirements and that all the members' skills meet the competencies required. Having individuals trained as qualified instructors for these areas is a necessity due to the cost restraints of sending personnel out for training.

Having proper propos and a facility that can accommodate activities such as search and rescue, deployment of charged fire attach lines, forcible entry, ladders, ventilation, sprinkler and standpipe operations, structural firefighting tactics with live burns, compressed and flammable liquid fires, hazard materials operations, high angle rescue, etc., are important to the firefighters experience. Providing quality academics are not the concern, the challenge is, providing good quality ***practical*** experience. Constructing a fire training structure will address the ever challenging concern of attaining quality practical fire training facility and training props for our firefighters.

(Recommendation # 7)

Continue and maintain an adequate training program and to meet the needs of the members, it is recommended that the Fire Training Grounds project be completed.
Reference: Training, Special Operations, Sections 5.11,5.12 Pages 55-56

5.13. Operations

5.13.1. Facilities

The current Fire Station and its present location has served the community since 2007 after the move from the downtown area. Its effectiveness from a response travel time perspective has allowed the department to cover the community's growth footprint and maintain reasonable response times. However the move from the downtown station has given concerns as to access to the north

side of the train tracks. Considerations should be made to allocated lands on the north side of Camrose for a future 2nd Fire station.

(Recommendation # 10)

Allocate land on north side of Camrose for a second Fire Station. (See map of Future Fire Station Land Locations). It is further recommended to secure the land of either Site # 2 or # 9 for this purpose as they have the best access routes around the north side. Having the land designated now will assist those tasked with planning for the future to not have to look for space to build. . This approach was similar to the approach taken many years ago that set aside the land that the current building is located.
Reference: Operations - Facilities, Sections 5.13 Page 56

5.14. Staffing Resources Plan

Overall performance of the department is related to several components. One important component of a response system is the response team and their capabilities to complete critical tasks in a timely safe fashion. Those critical tasks are basic tactical activities conducted at an emergency scene to reduce risk to firefighters and the public and reduce or mitigate loss. In order to achieve success, the available response resources must be equal to the expected effort. The expected effort must be based on industry standards, historical data and projected risk.

It appears that, in the case of CFD, the initial staffing levels may not be adequate for effective fire suppression or rescue capability on a response to a typical fire or rescue during Monday to Friday daytime hours. The type of response resources is based on several tasks that require adequate staffing levels to safely and effectively complete in a reasonable time frame. Some of those tasks include establishing a water supply, extending an attack line and commencing search and rescue. Without this resource in place from the beginning of the event, it becomes unlikely that the crew will be able to contain the fire to the area of involvement upon arrival.

Recommendation same as # 2 staffing changes to meet response capabilities also to be able to change intervention times from 16 minutes down to 7 minutes requires more full time staffing. Consider looking at NFPA 1710 Standard for Career Fire Department.

5.15. Service Levels

It is the responsibility of Council to provide the direction for the development of a fire department and ensure that the budgets are spent as directed. The primary document for this guidance is the municipal bylaw that outlines the basic expectations. The bylaw should outline the expected level of service and then budget the appropriate resources to meet that standard. As expected, the higher the standard the greater the budget required to meet that standard. Providing the fire department with a list of services expected and an intervention time will provide guidance. The service levels must not be so specific that the Council increases the City's liability or needs to constantly review the results.

The first step is formal recognition of which services are expected. Various documents identify what services are currently provided by the fire department. Council may consider amending the Bylaw or introducing a resolution with more specific definition of the types of services to be provided. An easy example is rescue. Few departments can provide all types of rescue based on the hazards. Relevant types of rescue are identified and the necessary training and equipment are obtained. Any other rescues that may occur infrequently are handled in the best manner possible.

Service levels determine the staffing needed, the equipment required and the qualification level expected. Measurement of service level is primarily done by determining the interval needed for a qualified team to commence the necessary operations for assistance. Different scenarios need varying levels of staffing. A residential fire, for example, requires five personnel to commence the basic intervention tasks. If this intervention takes longer than ten minutes from time of ignition the chances of success diminish exponentially. One factor that can impact this statistic is the installation of automatic suppression systems since it will delay or prevent the fire reaching flashover, leaving water and smoke damage as the major concern in the delay.

(Recommendation # 11)
Meet with building and development officials to introduce residential Fire Sprinkler Systems in our community.
Reference: Service Levels, Section 5.15 Page 58

5.16. Changing Times

In the delivery of community services the demands on the fire service has grown into an expanding role of important and new services. The overall frequency of responses and complexity of the events the department responds to has caused pressures, which need to be considered when planning a healthy, safe community. With the increased response area and combined building stock are good rational indicators of future community expectations. Identified clusters include:

- Emergency calls
  - Fires
  - Alarms
  - Motor Vehicle Collisions
  - Rescues
- Public Service
  - Emergency
  - Non-emergency
- Medical Assist

5.17. Equipment

Budgeting for equipment must meet the needs of the services expected. As the services provided by the department to meet the needs of the community become more technical, the cost of equipment will have to match the safety demands. Occupation Health and Safety's requirement to ensure that equipment is tested annually and/or replaced, as required, is part of that increasing maintenance cost. Future growth of Camrose will determine the amount and type of equipment needed. The need for newer equipment, and/or replacement equipment as it ages, will be reflected in the annual budget. As another fire station comes into operation, addressing the equipment needs of the station will result in an initial budgetary increase, which will level off to more of a maintenance and replacement cost for future budgets.

5.17.1.Apparatus

Vehicles are the biggest equipment expenditures. Currently, CFD has a life cycle replacement program that is being adequately funded. The amount and types of maintenance must be balanced against the expected life and usage of the vehicles; particularly during the latter life of the vehicle. CFD has five pieces of front line major apparatus along with five additional light duty vehicles, all of which are well maintained, with the oldest front line apparatus put into service in 1999.

(Recommendation # 3)
Maintain the established Vehicle Apparatus Replacement Program that follows Underwriters Laboratories of Canada CAN/ULC-S515-M88 Standard for Automobile Fire Apparatus. Apparatus should be kept on first alarm response duty for the first 15 years of service, retired to reserve status for 5 years, then retired from service altogether and continue to set funds away annually for this purpose.
Reference: Equipment – Vehicles Section 5.17.1 Page 59

5.17.2. Ancillary Equipment

CFD has an adequate cache of ancillary equipment to match the response needs. As the response needs change or grow, additional equipment to match the service must be considered.

(Recommendation # 4)
Establish Capital Replacement Programs for major replacement items such as SCBA, bunker Gear, fire Hose and radio communications equipment whereby funds are set aside annually for this purpose.
Reference: Equipment, Section 5.17.2 Page 60

5.18. Building Risk Analysis

The fire protection planning process includes a detailed review of frequency of events, potential loss, and consequence of the loss. One important concept of the risk assessment process includes the inventory and tracking of all large high risk buildings or industries within a community. This inventory is then evaluated on the probability/consequence matrix to assist in determining the type of risk and types of prevention and mitigation need if an event were to occur. Spending large amounts of time and resources to solve a problem or risk that is low frequency will have limited impact and minimal improvements to community safety. Because the distribution of resources and capacity are limited it becomes critical to manage any additional risk by careful planning and alternative solutions.

Buildings of a larger scale or special demands such as schools, recreation centers and senior's homes must be evaluated and engineered to meet not only the code but the expected response available.

As new commercial and industrial buildings are added to the inventory, it is important that the fire department has an opportunity to review and evaluate the impact and make recommendations on options to mitigate any new risks. Several new larger occupancies over the years have been reviewed by the fire department administration and valuable input has assisted in minimizing risk and resource pressures to an already limited response system.

5.19. Community Planning Involvement

As stated in Section 5.1, there needs to be a high level of coordination between the City's Planning and Development and CFD to ensure the emergency response service levels keeps pace with the rate of development. In addition land use planning should include safe transitions between residential and industrial areas in order to reduce the risk of neighborhood centers being impacted or exposed to industrial incidents.

5.20. Communications

The 911 and Fire Dispatch Centre is handled by the City of Camrose utilizing CPS who effectively categorizes the 911 caller's emergency and aligns the appropriate emergency resource to best meet the needs of the caller. This process is extremely effective and meeting NFPA 1221 standards for call processing and assisting CFD in building pre-determined responses for apparatus and staffing resources to best manage an emergency event.

(Recommendation # 8)
Transition the Fire Service to digital radio communications system with the potential movement towards a provincially based system such as AFFRAC's.
Reference: Communications, Section 5.20 Page 61

5.21. Fire Prevention

Fire Prevention has gained a higher profile as departments become more proactive in minimizing losses suffered by their citizens. Although the lights and sirens of an emergency response is the perception of fire departments, prevention is the vehicle to impact the lives of all citizens. Whether it is the visits to local schools or the enforcement of minimum code requirements, the mitigation of risk better serves the citizens than providing rescue and suppression services after the fact.

Fire Prevention is a proactive approach to fire safety in the community and should be given a prominent place at least equivalent to other facets of the fire department when allocating budget funds for citizen safety. Fire Prevention is supplied by providing inspections, fire investigations, fire prevention, and education with the help of the volunteers. It is difficult to measure the actual impact of fire prevention, particularly in the short-term, but the prevention of just one fire is a positive step. Over time, statistics will show relative reductions in particular types of emergencies responses if the fire prevention program is effective. The effectiveness of a fire prevention program is directly proportional to the resources committed to the program. The level of resources must be carefully chosen to be cost-effective. Since no risk mitigation of emergencies can be expected to be 100% effective, goals must be set and evaluated regularly to ensure the best value.

5.21.1.Fire Prevention Education

Education provides the opportunity for the department to interact with the citizens of their community in a non-emergency setting. Just ensuring citizens are knowledgeable about the services being provided is a benefit. Traditional education includes teaching children safe practices, actions in the event of a fire and fire station tours.

Other training could also be of benefit. One simple training lesson is proper reporting procedures when reporting an emergency. Teaching citizens when and how to relay the proper information over the telephone, can save precious time in an emergency.

The major problem with education is justifying a budget and time for completion. It is difficult to state that, because of improved education, we will see a corresponding reduction in fires this year. The continued success of the program is measured over time, which can only occur if the fire department commits to and maintains a program.

5.21.2.Fire Prevention Engineering

This is primarily dealing with the City's Building Department in ensuring that new developments or upgrades provide the safest possible neighborhoods. This can be accomplished not only by meeting standard building codes, but also ensuring local conditions are considered to maximize the level of safety. Intervention times can often be overlooked when developing a new community. If citizens knew that their home or business would be beyond saving before the fire department could arrive they might consider alternatives in location, construction or protection.

5.21.3.Fire Prevention Inspections

The requirement for inspections and education in a community with minimum staffing is vast. Statistical data on the present inspections and educational presentations are outlined below, with an average just over 20% of potential contacts being achieved you can see the benefits of maintaining such an important program. The potential contacts, which is the estimated number of inspections that could be done is based on the approximate number of businesses or facilities in the City that CFD could reach out to.

Year	Estimated total number of Inspections could be conducted in City of Camrose	Regular fire inspections Conducted	Business License Inspections conducted	Miscellaneous Inspections conducted	Percentage Conducted
2015	576	41	77	3	21%
2016	576	70	73	0	25%
2017	576	46	74	0	21%
2018	576	51	95	0	25%
Average percentage conducted over 4 years					23%

Year	Estimated total number of Safety Education could be conducted in City of Camrose	School Fire Prevention Presentations	Senior Fire Prevention Presentations	Business Fire Prevention Presentations	Fire Extinguisher Training	Percentage Conducted
2015	300	17	27	8	23	23%
2016	300	6	8	11	3	9%
2017	300	34	41	19	9	31%
2018	300	25	17	15	10	22%
Average percentage conducted over 4 years						21%

(Recommendation # 9)

Ensure adequate resources are designated for inspections and public education. Fire Prevention and Education is an important tool of the fire department the more "PROACTIVE "we are in prevention and education hopefully the less "REACTIVE "we are with Emergency response.
Reference: Fire Prevention Section 5.21 Page 62

5.22. Cost/Budget

The CFD 2020 budget amounted to $1,487,144, representing 3% of the Municipal budget. Typical fire department expenditures are very stable from year to year with wages being the largest factor. As the Master Plan becomes the cornerstone of the decisions for the department to focus on, it is critical to clearly outline future expenses based on this plan. This provides a long range assessment of required investment of both financial and personnel resources to meet the clearly identified targets.

The actual implementation of the recommendations contained in this report is strategic. The Fire Chief working with City Administration would establish benchmarks based upon factors such as increased calls for service, new developments, increased risks and population increases over the next 5-10 years. These benchmarks will assist Council in determining their priorities based upon their goals, fiscal realities and other competing demands.

5.22.1.Fire Department Comparisons

An attempt was made to identify some communities and their fire departments in Alberta that were similar in size and operating characteristics of Camrose. Any comparisons must be viewed keeping in mind the differences rather than the similarities of those departments.

5.22.2.Vehicles and Equipment

Budgeting for emergency vehicles and equipment must meet the needs of the services expected. As the services provided by the department become more technical, the cost of equipment will have to match the safety demands. Requirements of industry standards (NFPA), Occupational Health and Safety, and Underwriters, ensure that the equipment is tested annually and/or replaced as required, are part of that increasing maintenance cost.

CFD has developed an Emergency Vehicle Procurement and replacement program for the next 10 years. It is important that the annual contribution to the Emergency Vehicle Program continue to ensure the financial resource is available when the additional station is constructed and for life cycle replacement. CFD has the typical inventory of firefighting equipment and is well maintained.

5.22.3.Staffing

Budget for staffing will be based on the needs of the department and the minimum staffing levels. The recommended staffing increase is for CFD is to move from 4 full time members to 6 to allow for daytime responses Monday – Fridays, 1st truck out of the station backed up with volunteers.

5.22.4.Training

As detailed in section 5.11 of this Plan, the current training levels address the current requirements for Occupational Health and Safety. Adjustments need to be made to better cover the training requirements for some areas identified by the statistics and risks outlined. The core competencies and specialty services for the

City of Camrose are sufficient, as there are excellent records and training matrices to support the required SOGs.

The Deputy Fire Chief provides additional management capacity to focus on the department's training needs. Being able to focus on a yearly training schedule will ensure that members' competencies are current and in accordance with NFPA Standards and Guidelines. Increases to the training budget will need to occur as the recommended additional programs are implemented and staffing levels increase.

5.22.5.Fire Prevention

Currently fire prevention is provided from a Fire and Life Safety Educator and operational staff. The overall Fire Prevention program is performed by the Fire and Life Safety Educator. Camrose continues to grow and fire prevention tasks increase, additional staffing in fire prevention should be planned within the next 2-3 years.

Appendix A – EMPLOYEE ENGAGEMENT

Fire Master Plan Workshop
Firefighters
December 3, 2019 6:00 – 9:00 p.m.
Lougheed Performing Arts Centre, Mayer Community Hall

Strengths of Camrose Fire Department

The group discussed the strengths of the Camrose Fire Department:

- Brotherhood/sisterhood
- Comraderie
- Efficiency
- Knowledge
- Training
- Confidence
- Strength in numbers
- Passion to serve
- Wide range of experience
- Call experience
- Various expertise (trade skills)
- Bring your best
- Trust
- Integrity
- Forward looking
- Got your back
- Strong leadership
- Public trust / image
- Equipment / facility
- Diversity
- Dedication
- Firefighters' families
- Relationships with Police, EMS, RCMP, Mutual Aid
- Employer dedication
- Reliability
- Extracurricular fun together
- Continuous learning
- Strong history
- Room for advancement
- Positive community functions
- Great support for managers
- Mentorship
- Communication
- Feedback
- Feel valued as part of the team
- Accountability
- SOGs
- Fire prevention

Challenges

The group discussed challenges facing the Camrose Fire Department:

- **Training**
  - Training
  - So much to learn, never enough time to learn it all
  - Lots of skills are needed (increase training frequency on ropes, VX, pumping, etc.)
  - Training needs (recertification, time commitment, live burn)
  - Enough training time to cover everything as a volunteer
- **Personalities**
  - Personalities
  - Personality differences
  - Admitting fault / personal dynamics
  - Generational
- **Staffing**
  - Impossible to replace members all the time
  - Losing leadership: senior officers leaving over next five years
  - Recruitment hiring process
- **Budget**
  - Budget restraints (gear)
  - Lack of training funds at times
  - Budget
- **Firefighter Availability**
  - Challenges of time commitment / attendance at calls and training

    - Commitment / availability – sometimes tough to muster a crew
    - Call response availability
    - Fall / fire / work / balance
- **Gear and Equipment**
    - Bigger budget for PPE gear
    - More funds for equipment
    - Dedicated funding for gear, radios, safety
    - Health risks – two sets of gear (combustible materials are more toxic compared to 15 years ago)
    - Two sets of gear, 1 to be clean – chemical contamination
    - Keeping up with technology – gear, radios
    - Analog radio system changeover to digital (communications)
- **PTSD**
- **Lack of Officer meetings**

Trends

The group discussed what changes may be coming in the next ten years that may impact the Fire Department:

- OH&S regulations
- Government support at all levels / government budget
- New technologies / more motor vehicle collisions
- Social media (x2)
- Potential for mass casualty event (possible terrorism, weather event, bus, school lockdown)
- Increased EMS assist / EMS (cut backs, economy, change of their dispatch, adds to our calls)
- City population increase / urbanization (population density)
- Change in construction materials
- Full-time fire service
- Railway traffic
- Specialized training

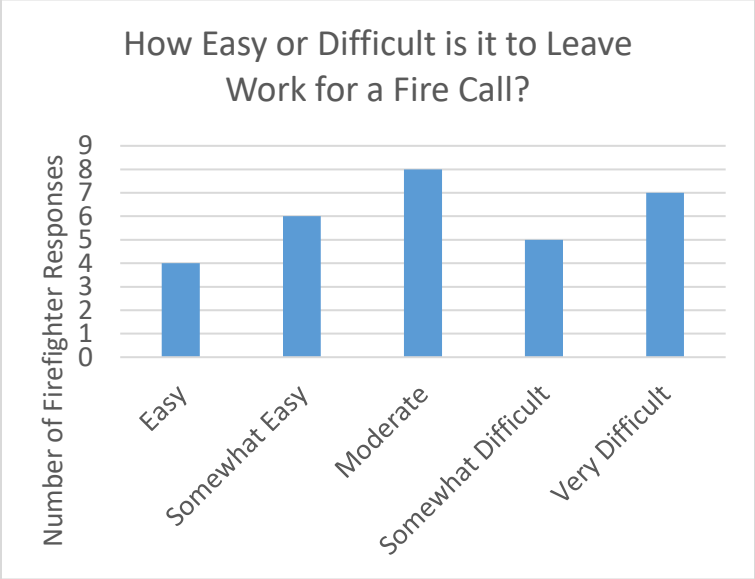
Suggestions for Solutions

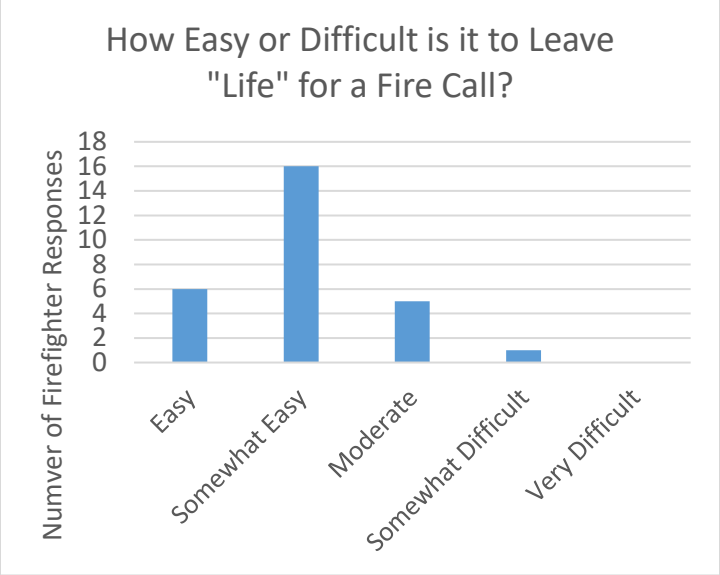
- **Training**
    - Training budget increase (time, commitment, courses, facilities)
    - Training offerings (high frequency calls)
    - Training facility
    - Specialized teams (extra training – rope rescue, medical EMTs, ice rescue)
- **Staffing**
    - Recruitment and retention: advertisement, interview process, Department events, new technology
    - Change hiring tactics to create bigger pool of potential candidates
- **Budget**
    - Explore alternative avenues of funding – grants, donations, more volunteering, education through social media
- **Availability**
    - Analyze call volume and attendance

- **Training Facility**
    - Training facility
    - Training facility
    - Training facility
    - Training facility
    - Training facility
    - Training facility – can build in stages, fundraising, donations, City budgeting
    - Need live fire training at training facility
- **Health and Safety**
    - OH&S mandatory second set of gear
    - Personal gear – purchase in stages, City budgeting

Firefighter Availability

The group discussed how easy or difficult it is for each Firefighter to leave work and "life" to attend to a Fire Call. Each firefighter submitted a response on a scale of 1 – 5 with 1 being easy to attend the fire call and 5 being very difficult.





Appendix B- REGIONAL ENGAGEMENT

City of Camrose Fire Master Plan Workshop
Regional Fire Chiefs
December 10, 2019 7:00 – 9:00 p.m.
Camrose Fire Station

Attendance: Peter Krich (City of Camrose), Mike Kuzio (Camrose County),Ross Penner (New Norway), Vern Kovac (Roundhill),Jordan Lee & Dustin Hemmingson (Bashaw), Jon Rosland (Edberg), Peter Tobler (Rosalind), Dwayne Dennis (Bawlf)

Guests: Kim Isaak (City of Camrose), Malcolm Boyd (City of Camrose)

Opening

- City of Camrose Fire Chief Peter Krich welcomed everyone, thanked them for coming to this meeting, and provided background that the City of Camrose is creating a ten-year Fire Master Plan and is seeking input from the fire services in the Camrose area for what they each see as current and future strengths and challenges as well as opportunities to collaborate further as a region.

Strengths of Fire Departments in the Area

- Leadership – Fire Incident Command System, communication, leadership
- Teamwork – teamwork, camaraderie, teamwork, unity, great teamwork
- Equipment – excellent equipment, good equipment, updated equipment
- Funding
- Diverse skills
- Response – response time, responsive, fast response time, local
- Training – strong willingness to learn, rescue training, training local people, mutual aid
- Personnel – young crew, young firefighters
- Record keeping – good incident reporting and record keeping
- Public relations – good relationships with County, support from village, good relationship with Public Works, positive public relations
- Good fire facility
- Getting the most value for each dollar

Challenges Facing Fire Departments in the Area

- Changes in Technology
- Equipment – equipment, equipment costs, too equipment funding, too small of budgets for equipment
- Firefighter availability – daytime calls, recruitment in response area, member response, availability of personnel, attendance, daytime availability, challenges for membership
- Communication with Other Emergency Services – communication with dispatch and other services, radio communications, communications with EMS and other services
- Training/Knowledge – infrequent attendance at training, practice attendance, limited knowledge, time for courses, starting over

- Response Time – vast area to cover, large response area, response times for large distances to cover, travel time
- Water Tender Support Time
- Training Facilities – training facilities, old fire halls, aging infrastructure

Spectrum of Regional Cooperation for Fire

Fee For Service / Mutual Aid

One Regional Fire Service

How could more cooperation help your fire service?

- More opportunities for training
- Local training facility – more accessible, more opportunities to get firefighters trained
- Knowing what equipment each service has
- Bulk purchases as a region
- Standardization of equipment
- Pooling of personnel could mean more availability for daytime fire response
- Dispatch upgrades and clarity
- Shared technology and communication channels (such as "I Am Responding") make for easier teamwork
- Prevention
- Investigations
- PIP
- Inspections
- Water rescue

How could we get there?

- Regionalize portions first
- Research success stories
- Set shared goals and budget
- Present as an option to village Councils
- Gain confidence of the people
- Goal setting and prioritization
- Connect technology of each Fire Service

Appendix C – COMMUNITY COMPARISION

City	Camrose	Brooks	Chestermere	Cochrane	Fort Saskatchewan	High River	Strathmore
Population	18,742	15,000	22,370	29,227	26,942	14,487	14,381
Operating Budget	$55,246,818	$27,050,000	49,240,797	$59,307,572	79,592,814	32,800,00	$37,744,000
Fire Department Operating Budget	$1,487,144	975,000	3,288,087	$6,360,078	3,946,657	2,955,620	$1,677,000
Land Area (km^2)	42.62 km^2	19.22 km^2	32.94 km^2	30.17 km^2	57.64 km^2	21.39 km^2	27.4 km^2
Department Staffing	**Composite** 1-Chief 1-Deputy Chief 1-Investigator 1-Fire Educator 40 Volunteer FF's .2 Admin	**Composite** 2 - Chiefs 1-Deputy Chief 32 Volunteer FF's 1- Admin	**Fulltime** 1-Chief 4- Captains 16-Career FF 1-Admin	**Composite** 1-Chief (vacant) 1- Deputy Chief 2- Safety Codes Officer 20-Career fulltime FF 36-Paid-on-call FF	**Composite** 1-Chief 4 – Deputy Chief 7 – Captains (4 FT, 3 POC) 20 – Engineers (4FT, 16 POC) 20 FF POC 1 Admin	**Composite** 1-Chief 1- Deputy Chief 10-Career FF 30-Paid-on-call	**Career** 1 – Fire Chief/DEM 1 – Deputy Chief 2- Captains 2- Lieutenants 2- FT FFs 42 – Volunteer FFs .8 - Admin
Unionized	No	No	Yes	Yes	In the process	No	No
# of Stations	1	1	1	1	1	1	1
Apparatus Equipment	4 Engines 1 Rescue 1 Aerial 1 Tender 2 Bush Trucks 1 Side x Side 1 Rescue Boat 1 Investigation Unit 1 Support Unit 1 Fire Prevention Van 1 Chief Unit 1 Specialty Rescue Trailer	4 Engines 1 Rescue 1 Aerial 1 Tender 2 Bush Trucks 1 support unit 3 chief units 3 rescue boats 1 UTV grass & rescue 1 hazmat trailer 1 livestock ER trailer 1 port gen/Lt tower	1 Engine 1 Rescue 1 Aerial 1 Tender 1 Bush Truck 1 Aquatics Rescue boat 1 Aquatics rescue 1 UTV 1 ERU 1 ARU 1 Chief response vehicle 1 Support Trailer	2 Engines 1 Rescue 1 Aerial 1 Tender 2 Bush Trucks 1 Tech Rescue 1 Jet Boat 1 Pontoon Boat 1 Inspection Unit 1 Investigation Unit 1 Chief Unit 1 Mobile Incident Command Trailer	3 Engines 1 Aerial 1 Tender 1 Bush Truck 2 Chief Officer Vehicles 2 Incident Support Units	4 Engines 1 Rescue 1 Aerial 1 Tender (owned by foothills county) 1 Bush Truck 2 ATVs (1 loaned to foothills county) 1 Airboat 3 Command Truck 1 Enclosed Trailer 1 Load Trailer 16ft 1 Night Hawk Tower	2 Engines 1 Rescue 1 Aerial 1 Tender 1 Bush Truck 1 Jet Boat 1 Zodiac 1 Water Rescue Support Truck 1 Water rescue Trailer 1 Haz-Mat Trailer
Total Call Volume	2019 – 206	2019 - 421	2019 – 837	2019 - 974	2019 – 665	2019 - 734	2019 - 428
First Engine Manning	6	6	3-4	4	3	4	4 minimum

City	Camrose	Brooks	Chestermere	Cochrane	Fort Saskatchewan	High River	Strathmore
Department Staffing Model	4 FTE Monday to Friday and on call basis after hours	3 FTE Monday to Friday, all 32 volunteer FFs on call no selective paging	4 platoon 10/14 shifts	24 hr. shift, 4 platoons on a 4 FT, backed by casuals to 5 - 1 platoon on shift for suppression - 2 inspectors weekly at 40 hrs.	4 on duty at all times 1 car with supervisor (AFC) Squad of officer, operator and 1 FF (mix of fulltime and POC)	4 FF/crew, 24/7 3FT+ 1PPC = 2FT+ 2PPC Fire Inspector = PT due to Covid Chief staff & Admin Asst. = Mon-Fri	3 career members and 1 on call 6am-6pm supported by volunteer. 6pm-6am covered by volunteer

BYLAW 3069-19
OF THE
CITY OF CAMROSE
PROVINCE OF ALBERTA

A BYLAW OF THE CITY OF CAMROSE TO PROVIDE FOR THE ESTABLISHMENT AND OPERATION OF A FIRE DEPARTMENT AND FOR THE PROTECTION OF PEOPLE AND PROPERTY.

WHEREAS Under Section 7 of the Municipal Government Act, R.S.A. 2000, Chapter M-26, 1, Council may pass bylaws for the safety, health and welfare of people and the protection of people and property:

NOW THEREFORE the Council of the City of Camrose, duly assembled, enacts as follows:

1. TITLE

This Bylaw may be cited as "The City of Camrose Fire Bylaw".

2. DEFINITIONS

In this Bylaw:

2.1 "Apparatus" - means any vehicle provided with machinery, devices, equipment or materials for firefighting as well as vehicles used to transport firefighters or supplies.

2.2 "Authority Having Jurisdiction" means:

2.2.1 the Chief or Deputy Chief of the City of Camrose Fire Department;
2.2.2 all persons designated by the Fire Chief of the City of Camrose Department as Deputy Fire Chief, Fire Prevention Officer, Fire Inspector, Fire Investigator or Safety Codes Officer.

2.3 "City "means the municipal corporation of the City of Camrose, in the Province of Alberta, and where the context requires means all lands situated within the corporation boundaries of the said City.

2.4 "City Manager" – means the Chief Administrative Officer appointed by Municipal Council pursuant to the Municipal Government Act.

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2.5 "Council" means the Council of the City of Camrose.

2.6 "Enforcement Officer" means any Peace Officer or any other person appointed by the City to enforce the provisions of this Bylaw.

2.7 "False Alarm" means any fire alarm that is sent out needlessly, through willful or accidental, human or mechanical error, and to which the Fire Department of the City responds.

2.8 "Fire Chief" means the person appointed by the City Manager or designate as manager or head of the Camrose Fire Department or any other person designated to act on behalf of the Fire Chief.

2.9 "Fire Permit" means a permit described in Section 16 and 17 of this bylaw.

2.10 "Fire Protection" means all aspects of fire safety including but not limited to fire prevention, firefighting or suppression, pre-fire planning, fire investigation, public education and information, training or other staff development and advising.

2.11 "Incident" means a fire or a situation where an explosion is imminent or any other situation where there is a danger or a possible danger to life or property and to which the Fire Department has responded.

2.12 "Member" means any person who is a duly appointed Member of the Camrose Fire Department, including a Part-time Member or volunteer Member.

2.13 "Open Fire" means any fire which is not contained within a fire pit, outdoor fireplace or stationary barbecue.

2.14 "Refuse or Waste" means

2.14.1 All animal or vegetable matter including materials resulting from the handling, preparation, cooking, consumption and storage of food.

2.14.2 Broken dishes, tins, glass, rags, cast-off clothing, waste paper, excelsior, cardboard, sawdust, food containers, plastic, grass cuttings, shrubbery and tree pruning, weeds, garden waste, manure, tree stumps, roots, turf, earth, furniture, major household appliances, discarded auto parts or such waste matter as may accumulate as a result of building construction, renovation, repair, or demolition.

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2.14.3 Any waste referred to in the Environmental Protection and Enhancement Act, Chapter E-12, R.S.A. 2000, the regulations thereunder and all amendments thereto.

3. PURPOSE

The Council hereby establishes the Camrose Fire Department for the purpose of:

3.1 preventing and extinguishing fires;

3.2 investigating the origin & cause of fires in accordance with the Quality Management Plan approved by Council and the Safety Codes Council;

3.3 preserving life and property and protecting persons and property from injury or destruction by fire;

3.4 providing rescue services from vehicles, water & ice, and confined spaces;

3.5 preventing, combatting and controlling incidents;

3.6 carrying out fire inspections and prevention patrols in accordance with the Quality Management Plan approved by Council and the Safety Codes Council;

3.7 initial first responder to dangerous good(s) incidents;

3.8 entering into agreements with other municipalities or persons for the joint use, control, and management of fire extinguishing apparatus and equipment;

3.9 purchasing and operating apparatus and equipment for extinguishing fires or preserving life and property;

3.10 initial first responder to medical response;

3.11 enforcing the provisions of the Safety Codes Act and its regulations.

4. The Fire Chief has complete responsibility and authority over the Fire Department, subject to the direction of the City Manager or designate, and shall, upon approval of the City Manager or designate, prescribe rules, regulations and policies for the ongoing organization and administration of the Fire Department including but not limited to:

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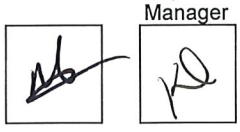

4.1 the use, care and protection of Fire Department property;

4.2 the appointment, recruitment, conduct, discipline, duties and responsibilities of the members of the Fire Department;

4.3 the efficient operation of the Camrose Fire Department.

5. Regulations, rules or policies made pursuant to Section 4 of this Bylaw shall not be inconsistent with the legislation and regulations of the Province of Alberta.

6. The Fire Chief shall:

6.1 upon approval of the City Manager or designate purchase or otherwise acquire equipment, apparatus, materials or supplies required for the operation, maintenance and administration of the Fire Department to be used in connection therewith;

6.2 keep or cause to be kept, in proper form, records of all business transactions of the Fire Department, including the purchase or acquisition of equipment, apparatus, materials or supplies and records of fires attended, actions taken in extinguishing fires, inspections carried out and actions taken on account of inspections and any other records Incidental to the operation of the department;

6.3 upon approval of the City Manager or designate, negotiate on behalf of Council, with the Provincial Government of Alberta, other municipalities and persons for the purpose of establishing mutual aid agreements and fire control agreements with recommendations and concerns regarding the establishing or renewing of any mutual aid agreement or fire control agreement or amendments thereto;

6.4 perform such functions and have such powers and responsibilities as the City Manager or designate may from time to time prescribe, including but not limited to:

6.4.1 rescue
6.4.2 other incidents
6.4.3 pre-fire planning
6.4.4 disaster planning
6.4.5 preventative patrols.

7. The Fire Chief, or any other member in charge at an incident, is empowered to cause a building, structure or thing to be pulled down, demolished or otherwise

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removed if deemed necessary to prevent the spread of fire to other buildings, structures or things.

8. The Fire Chief, or any other member in charge at an incident, is empowered to cause the Fire Department to enter on any land or premises, including adjacent land or premises, to combat, control or deal with the incident in whatever manner deemed necessary.

9. The Fire Chief, or any other member in charge at an incident shall be given access at reasonable hours, to both public and private places, for the purpose of inspecting the premises to ascertain whether the same constitutes or is likely to constitute a fire hazard.

10. The Fire Chief, or any other member in charge at an incident shall have the authority and power to:

    10.1 require any able-bodied adult person, to assist in extinguishing fires and to assist in the prevention and spread thereof;

    10.2 commandeer and authorize payment for the possession or use of any equipment for the purpose of fighting a fire;

    10.3 enter a closed area without a permit or written permission;

    10.4 obtain from any person found on public land or leaving or entering public land that person's name, address and an account of activities and the route or activities the member proposes to carry out and the route the member intends to follow on public land;

    10.5 without a warrant enter on any land and premises, except a private dwelling house, for the purpose of discharging duties under this Bylaw;

    10.6 without a warrant enter any private dwelling house which is on fire and proceed to extinguish the fire or to prevent the spread thereof;

    10.7 direct the operations of extinguishing or controlling the fire or the operations to preserve life and property;

    10.8 prevent interference with the efforts of persons engaged in the extinguishing of fires or preventing the spread thereof by regulating the conduct of the public at or in the vicinity of any fire.

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11. If the City finds within its Municipal boundaries on privately owned land or occupied public land conditions that in its opinion constitute a fire hazard, it may order the owner or the person in control of the land on which the fire hazard exists to reduce or remove the hazard within a fixed time and in a manner prescribed by the City.

12. When the City finds that the order it made pursuant to Section 11 has not been carried out, it may enter on the land with any equipment and any person it considers necessary and may perform the work required to eliminate or reduce the fire hazard.

13. The owner or the person in control of the land on which work was performed pursuant to Section 12 shall upon demand reimburse the City for the cost of the work performed and in default of payment the Council may add the cost to the tax roll of the said land, which forms a special lien against the land in favour of the City, from the date it was added to the tax roll.

14. The owner or authorized agent of any property damaged by fire shall immediately report to the Fire Department particulars of the fire which are satisfactory to the Fire Chief.

15. The owner or authorized agent of any property containing a dangerous good(s) product which sustains an accidental or unplanned release of the dangerous good(s) product shall immediately report to the Fire Department particulars of the release which are satisfactory to the Fire Chief.

16. No person shall permit an open fire, nor burn, suffer, allow or permit the burning of refuse or waste, upon land owned, occupied or under control of that person within the City of Camrose, without a valid fire permit issued pursuant to this Bylaw, or except as provided herein.

17. The authority having jurisdiction may issue fire permits for burning, fire pit construction, fireworks display, and

    17.1 for the burning of weeds, grass and brush in road rights-of-way;
    17.2 for fires related to recreational uses in non-approved areas;
    17.3 for the burning of coal and straw for ground thawing.

18. A person to whom a fire permit has been issued under Section 16 and 17 shall at all times keep a competent person in charge of the fire, and shall barricade or otherwise secure the area, to limit the entry of unauthorized persons.

19. A person to whom a fire permit has been issued under Section 16 and 17 or a person who fails to obtain a permit, shall upon demand pay to the City any and all

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costs incurred to extinguish a fire when, in the opinion of the authority having jurisdiction, the fire is a hazard to the public, buildings or adjacent properties.

20. Fire permits are required for fire pits, outdoor fireplaces and stationary barbecues.

21. No fire permits are required for portable barbecues which are operated by liquified petroleum gas (LPG), natural gas or compressed briquettes or charcoal when used for the purpose of cooking or obtaining warmth, provided the appliances for cooking or obtaining warmth are used on the property of the resident or in a public area at a location approved by the authority having jurisdiction.

22. Fire pits, outdoor fireplaces and stationary barbecues that burn combustible material shall meet the following requirements:

    22.1 A minimum of 3.00 meters (10 feet) clearance shall be maintained from buildings, property lines, and combustible materials or as approved by the authority having jurisdiction.

    22.2 Installations shall have a surface or cooking area not exceeding 3800 square centimetres (634 square inches) enclosed sides not exceeding 46 centimetres (18 inches) above ground level and shall be constructed of bricks, concrete blocks, heavy gauge metal, or other suitable non-combustible components as approved by the authority having jurisdiction.

    22.3 A spark arrestor mesh screen of 1.30 centimetres (.50 inches) expanded metal (or equivalent) to contain sparks, shall be provided over the fire, at all times.

    22.4 Only clean fuel shall be used (clean dry wood or charcoal). Refuse or waste matter shall not be burned.

    22.5 The users of such installations shall ensure that smoke or sparks do not create a nuisance or hazard to neighbours or other properties.

23. Fireworks storage and resale are banned within the City of Camrose

24. Fire permits are required for fireworks displays.

25. Where the Camrose Fire Department has taken any action whatsoever for the purpose of extinguishing a fire or responding to a fire call or incident within the City or for the purpose of preserving life or property from injury or destruction by fire or other incident on land within the City, including such action taken by the Camrose Fire Department on a false alarm, the Fire Chief may, in respect of any costs

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incurred in taking such action, charge any costs so incurred to the person who caused the fire or the owner or occupant of the land in respect of which the action was taken.

26. The costs and fees to be charged by the Camrose Fire Department for services rendered pursuant to the Bylaw shall be as set out in the City of Camrose Annual Fees and Charges Bylaw.

27. In respect of the costs or fees as described in Sections 25 and 26;

27.1 the City may recover such costs or fees as a debt due and owing to the City, or

27.2 in the case of action taken by the Camrose Fire Department in respect of land within the City, where the cost or fee is not paid upon demand by the City, then in default of payment, such cost or fee may be charged against the land as taxes and owing in respect of that land.

28. Any person who ignites fuels, supervises, maintains or permits an Open Fire within the Municipal Boundaries of the City of Camrose contrary to the provisions of this Bylaw is guilty of an offense.

29. No person shall:

29.1 deposit, discard or leave any burning matter of substance where it might ignite other material and cause a fire;

29.2 conduct any activity that involves the use of fire that might reasonably be expected to cause a fire, without exercising reasonable care to prevent the fire from occurring;

29.3 provide false, incomplete or misleading information to the City or the Camrose Fire Department on or with respect to a fire or fire permit application.

29.4 interfere with the efforts of persons authorized in this Bylaw to extinguish fires or preserve life or property;

29.5 interfere with the operation of any Fire Department equipment or apparatus required to extinguish fires or preserve life or property;

29.6 damage or destroy Fire Department property;

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29.7 falsely represent a Fire Department member or wear or display any Fire Department badge, cap, button, insignia or other paraphernalia for the purpose of such false representation.

30. Every person who violates any of the provisions of this Bylaw, or who suffers or permits any act or thing to be done in contravention or in violation of any of the provisions of this Bylaw, or who neglects to do or refrains from doing anything required to be done by any of the provisions of this Bylaw, or does any act or thing or omits any act or thing thus violating any of the provisions of this Bylaw, shall be deemed to be guilty of an infraction of this Bylaw, and upon summary conviction is liable to imprisonment for a term of not more than six (6) months or to a fine of not less than $500.00 nor more than $10,000.00, or to both fine and imprisonment.

31. Notwithstanding any other provisions for penalties in this Bylaw, the Enforcement Officer may, in lieu of laying a violation ticket in respect to the alleged breach, issue a voluntary penalty ticket in the amount of ($100.00) for the first offense or ($200.00) for a second or subsequent offense to the accused in respect to the said breach and the accused may within seven (7) days of the issuance of such ticket pay such amount.

32. In the event that the prescribed voluntary penalty is not paid within the time allotted herein, the Enforcement Officer may thereafter lay a violation ticket in respect to the offense for which the voluntary penalty ticket was issued.

33. This Bylaw shall come into force and effect upon the date of passing thereof and Bylaw 2954-17 and Bylaw 3056-19 are hereby rescinded.

READ a **FIRST** time in Council this **16TH** day of **DECEMBER**, A.D. 2019.

READ a **SECOND** time in Council this **16TH** day of **DECEMBER**, A.D. 2019.

READ a **THIRD** time and **FINALLY PASSED** in Council this **16TH** day of **DECEMBER**, A.D. 2019.

MAYOR

DEPUTY CITY MANAGER

Mayor	Deputy City Manager