



# TOWN OF ST. MARYS 2019 FIRE MASTER PLAN

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Fire Master Plan  
Town of St. Marys Fire Department  
March 2019

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## Executive Summary

The Fire Chief is pleased to present a 10-year Fire Master Plan for the Town of St. Marys Fire Department. I would like to thank the Town of St. Marys and Fire Department staff, who freely gave of their time and expertise during the research and consultation phases of the project. My discussions with fire staff were conducted in a candid, professional, and respectful manner and demonstrated a high degree of commitment to the wellbeing and safety of the community.

Research and meetings confirmed that the Town of St. Marys will continue to be a primarily rural community with a low-density urban centre. Steady change in demographics, residential settlement, and industrial growth are anticipated over the next 10 years.

### Definition of a Fire Master Plan

A Fire Master Plan is a strategy to move from where a fire service was in May 2016 when Fire Chief Anderson was hired, where it is today April 2019, to where it needs to be over the period of the plan, based on objective evaluation of numerous factors including incident type, municipal change, demographics, risk analysis, and mitigation. Part of that strategy is to create favourable conditions to make the move successful. The “plan” component is how the fire service and municipality will move from where they are now to the expected end point. The plan – that is, its execution and implementation – will need to be adjusted from time to time over the 10-year period. This is a duty for the fire service and municipality.

A Fire Master Plan is considered a strategic blueprint for the provision of local fire protection and rescue services that addresses legislative requirements and local needs and circumstances, while taking into account the community’s ability to fund and support the level of service determined by Council. A Fire Master Plan also makes significant findings and recommendations relating to fire risks and hazards, fire protection capabilities, public education, fire risk reductions and management, community preparedness and response, and funding and fiscal measures relating to fire protection.

A Fire Master Plan also helps formulate and communicate strategic direction and highlight opportunities for optimizing service delivery. Because members of the fire department participated in the development of a Fire Master Plan, it provides an objective basis to support decision making with respect to community fire protection and prevention service needs.

In order to determine the appropriate time to move to the next step of a strategy – for example, the point at which a Fire Prevention Officer could be appointed into a full-time position, or fire hall capacity should be increased – a measurement method should be included in the plan. For the Town of St. Marys project, the Fire Chief set a basis for a measurement methodology by first establishing the level of service currently required by St. Marys and associating that service level with general community and neighborhood indicators such as demographics, population change, and response times by type of incident.

Once ascertained, those parameters can be extrapolated on three-to-five year intervals as a means of establishing milestones for expected change. In this way, a strategy can be established, not only for bringing the steering committee or other teams together to examine the Master Plan’s progress, but also to determine if anticipated response times, demographics, risk variables, and urbanization and intensification are unfolding as anticipated. The result is a review process to measure

compliance with the Fire Master Plan, provide milestone triggers for change, and assist delivery of the plan.

### Recommendation Summary

Recommendations within this report pertaining to the organization and operations of the Fire Department should be implemented within five years. Once Town senior staff and Council review the recommendations and decide which to implement, the Town should create a timetable for completion. And, subsequent to creating the implementation timetable, the impact of approved recommendations should be evaluated relative to the needs and circumstances of the community that may have changed since approval of the Fire Master Plan.

I have made recommendations, where appropriate, for each section of this report to address the objectives identified in the project RFP, and as brought forward during the consultation and research stages of the project.

### Governance

I recommend:

1. The establishment and enabling by-law be reviewed and revised to identify the types and levels of services to be delivered by the Fire Department.
2. The Fire Department organizational chart be revised to reflect the organizational model subject to approval by Council.

### Service Delivery

I have recommended in Section 4.1 Governance that the types and levels of services provided to the community by the fire department be reviewed and authorized by Council as a schedule attached to the establishment and enabling by-law.

### Fire Prevention and Public Fire and Life Safety Education

I recommend:

1. The Fire Department work with the Fire Prevention Officer to identify all high-hazard manufacturing operations and develop a coordinated Pre-Fire Plan inspection system utilizing paid-on-call firefighters to achieve these goals.
2. The Fire Department enhance its fire-cause determination capabilities to assist with focused fire prevention and education initiatives.
3. The Fire Department create a part-time position of Public Educator.
4. The Fire Department conduct a study to determine the status of working smoke alarms and carbon monoxide alarms in the community.
5. The Fire Department continue the existing public education programs in the schools

### Emergency Response

I recommend:

1. The Fire Department continue to monitor and provide annual reports to Council on emergency response incidents by type of emergency, travel times and number of responders.

### Training

I recommend:

1. The Fire Department develop a five-year training program/schedule.
2. The five-year training schedule take into consideration the types and levels of services delivered, as approved by Council, and address the training required to deliver those services at the operational level.

3. The five-year training schedule include mandated training requirements (such as first aid and CPR renewals) and department priorities based on frequency and hazard level of calls.
4. The training program include a regular review of the Ministry of Labour Fire Fighter Health and Safety Guidelines.
5. The five-year training program provide opportunities for training exercises, including task and incident command level simulations.
6. The Fire Department implement an officer training program that includes incident command, firefighter health and safety, and appropriate training in departmental administrative procedures.
7. The Fire Department continue with a training program for future officers.
8. The Fire Department create a Training Officer position for the fire department and provide training for that position.
9. Officers receive the necessary training to utilize the department's records management system (FirePro) to enter and access fire and training records.

### Administration

I recommend:

1. The management team, consisting of the Fire Chief and the Deputy Fire Chief, meet with the Captains to review positional job descriptions to ensure a clear understanding of the job roles and responsibilities by all parties.
2. The management team (Chief, Deputy & Captains) meetings are held regularly (once a month is recommended), to ensure an ongoing and open flow of communication through the department.
3. The Town conducts a time/workload study of the administrative functions of the Fire Department to ensure the Fire Department administration is adequately and efficiently resourced.
4. The Town undertakes the necessary hardware upgrades to make the most efficient and effective use of the FirePro system at the departmental and station level.
5. The Fire Department provide the training required to the officers to utilize the FirePro system for recording emergency incidents.
6. The Fire Department undertake a thorough review of all policies and procedures and standard operating guidelines upon approval by Council of the types and levels of services to be provided to the community by the Fire Department.
7. The Town undertakes a number of public information efforts to communicate the content of the Fire Master Plan to the community following adoption of the Fire Master Plan for the Town of St. Marys Fire Department.
8. The Fire Department present a report to Council annually indicating its compliance to Council approved service delivery standards.

### Finance

Suggestions and recommendations applicable to human resources and staff rapport are found throughout the report.

## Facilities

I recommend:

1. The current fire hall location is maintained and a refurbished fire hall be constructed in St. Marys on the existing property.

## Apparatus and Equipment

I recommend:

1. Continue with the established 10-year capital budget for the replacement of vehicles and equipment.
2. Upon reaching the due date for replacement, fire apparatus are evaluated to consider the condition, currency of operational and safety features, reliability, and operational functionality of the vehicle.

## Communications

I recommend:

1. The Town continues the current rate of contribution to the radio replacement project in the 10-year capital budget and monitors the project for more specific cost estimates as the project proceeds.
2. The Town should estimate the cost to replace the current inventory of radios in 2026 based on the current replacement value (\$20,000).

## Emergency Management Program

I recommend:

1. The Town considers a model for emergency management, removing the role and responsibilities for emergency management from the Fire Department.
2. The Town of St. Marys contract a consulting firm to conduct a review of the Town of St. Marys Emergency Response Plan, prepare a report and implement areas of improvement including an updated Hazard Identification Risk Assessment (HIRA).

## Section 1 Introduction

The Town of St. Marys council requested the Fire Chief to conduct a review of the Town of St. Marys Fire Department and prepare a 10-Year Fire Master Plan.

### 1.1 Project Objectives

The Fire Chief conducted a project review to consider the following:

- Governance – the applicable provincial Legislation and regulations, and municipal By-Laws relative to the Fire Department.
- Service Delivery – the level and range of services and programs delivered currently, and future requirements taking into account predicted growth and service delivery expectations.
- Fire Prevention – the Fire Prevention Program including fire inspections, investigations, and code enforcement.
- Public Fire Safety Education – the Public Education program, including demographics, website.
- Emergency Response – emergency response call volume and trends, including types of calls, numbers of calls, apparatus deployment, response staffing, firefighter deployment and safety.
- Firefighter Training – the Firefighter Training Program, including recruit training, firefighter training, and officer training.
- Administration – administration of the Fire Department, including organization, policies and procedures, administrative support, record keeping, information management, purchasing, inventory control, public and media relations, and customer service.
- Finance – the Fire Department budgeting, reserves, development charges, revenues and potential revenues.
- Human Resources – the Fire Department staffing, organizational structure, ratio of officers to firefighters, firefighter recruitment and retention, job descriptions, remuneration of full-time and paid-on-call staff, promotional policy, succession planning, and health and safety.
- Apparatus and Equipment – the Fire Department fleet of vehicles, fire apparatus and major pieces of equipment including the types of vehicles, age, replacement cycles, utilization and suitability.
- Maintenance Program – the inspection and maintenance of Fire Department vehicles, fire apparatus, and equipment.
- Communications – the Fire Department communications systems, including dispatch, paging, telephone, and radio systems.
- Emergency Management Program – the Emergency Management Program as managed by the Fire Chief/CEMC.

### 1.2 Legislative Responsibilities

Municipalities in Ontario are required to fulfill certain legislated responsibilities primarily identified in the Fire Protection and Prevention Act, 1997 (FPPA) and the Occupational Health and Safety Act, R.S.O 1990 (OH&S Act). The FPPA identifies the responsibilities of a municipality with regard to providing a public fire protection system for the municipality and the OH&S Act provides requirements and guidance on a municipality's responsibilities regarding firefighter health and safety.

Section 9.1 (d) of the FPPA enables the Office of the Fire Marshal and Emergency Management to issue guidelines to municipalities respecting fire protection services and related matters. The Fire Marshal has issued Public Fire Safety Guidelines (PFSG) for many fire protection issues including the

development of a Fire Master Plan. Generally, a Fire Master Plan for a municipality should be based on the three lines of defense and should be developed specific to the needs and circumstances of the municipality.

### 1.3 Three Lines of Defense

The three lines of defense for a municipal fire protection system are:

#### **I. Public Education and Prevention:**

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

#### **II. Fire Safety Standards and Enforcement:**

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

#### **III. Emergency Response:**

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

### 1.4 Local Needs and Circumstances

It is a municipal responsibility to establish the level of fire protection that will be provided within the community following an assessment of needs and circumstances. The municipal fire protection system for the Town of St. Marys, as envisioned within a Fire Master Plan, should be designed with consideration to the local needs and circumstances of the citizens of the Town.

The Office of the Fire Marshal and Emergency Management has issued Public Safety Fire Guideline (PFSG) 01-01-01 “Fire Protection Review Process” for municipalities to follow when preparing a Fire Master Plan. This public safety fire guideline refers to three other public safety fire guidelines to define local needs and circumstances – Fire Risk (PFSG 02-02-03), Capabilities of Existing Fire Protection Services (PFSG 02-04- 01), and Economic Circumstances (PFSG 02-03-01).

Public Fire Safety Guideline 02-02-03, Fire Risk, in general addresses such things as the municipality’s geography and demographics; the history of emergency calls; comparison with like communities; building stock and occupancies; prevention and public education programs; and public and private protection systems.

Public Fire Safety Guideline 02-04-01, Capabilities of Existing Fire Protection Services, generally addresses such things as the fire department organizational model; services delivered by the Fire Department; emergency response and operations; training; vehicles; water supply; risk management planning, and financial planning and management.

Public Fire Safety Guideline 02-03-01, Economic Circumstances, in general, addresses such things as assessment values; tax rates; municipal debt; total fire protection costs; assets such as development charge accounts and reserve funds; and possible loss impacts for major employers.

The Fire Master Plan for the Town of St. Marys Fire Department recommended within this report follows the general requirements of these public fire safety guidelines with consideration that they are currently under review.

## 1.5 Firefighter Health and Safety

Firefighter health and safety in the Province of Ontario is governed by the general provisions of the Occupational Health and Safety Act, R.S.O. 1910 (OHSA) with some exceptions related to the emergency response component of the service. Section 21 of the OHSA provides for the establishment of specific job sector advisory committees and the Ontario Fire Service Section 21 Advisory Committee is identified as the committee appointed to provide advice on firefighter health and safety matters to the Minister of Labour, and to issue Guidance Notes to the Ontario fire services on fire specific safety issues.

The Guidance Notes are provided to assist municipalities in their responsibility to “take every precaution reasonable in the circumstances for the protection of the worker” as required by the Act. The Guidance Notes are consolidated in a Section 21 Fire Service Health and Safety Manual available on various fire service websites including the Ontario Association of Fire Chiefs (O AFC), The Ontario Professional Firefighters’ Association (OPFFA), and the Firefighters’ Association of Ontario (FFAO).

The Guidance Notes issued by the Section 21 Committee provide advice on such matters as incident command; communications; vehicle maintenance; personal protective equipment; training requirements and documentation of training and procedures for conducting operations at the different types of services a fire department may provide to a community.

Although issued as Guidance Notes, the information is referred to by the Ministry of Labour as enforcement tools. Section 21 of the Occupational Health and Safety Act states:

*The Ministry of Labour in collaboration with fire service stakeholders develops Guidance Notes. Guidance Notes outline recommended equipment and procedures to be used by workers in the fire service to prevent injury or illness and will comply with the intent and provisions as outlined in the OHSA. The Ministry of Labour refers to the guidelines, guidance notes, alerts, etc. for enforcement under the OHSA, and is considered by the Ministry in determining if reasonable precautions for the protection of a worker are being taken under Clause 25.2(h) of the OHSA.*

While developing the Fire Master Plan, I reviewed and considered the Town’s health and safety responsibilities as identified in the Section 21 Guidance Notes.

## Section 2 Town of St. Marys

### 2.1 Background

The Town of St. Marys is located at the junction of the Thames River and Trout Creek, southwest of Stratford in Southwestern Ontario. Rich in natural resources, namely the Thames River, the land that now makes up St. Marys was traditionally used as hunting grounds by First Nations peoples. European settlers arrived in the early 1840s.

The Town is known by its nickname, "The Stonetown," due to the abundance of limestone in the surrounding area, giving rise to a large number of limestone buildings and homes throughout the town. In the riverbed and along the banks, limestone was close to the surface and could be quarried for building materials. Many 19th century limestone structures have survived including churches, a beautiful museum, stunning opera house, commercial blocks, and private homes. St. Marys was incorporated into the province of Ontario, officially, in 1863.

The arrival of the Grand Trunk Railway in the late 1850s spurred growth and soon St. Marys became a centre for milling, grain-trading and the manufacture of agriculture-related products. The railway connected the Town to the rest of the world and framed the local landscape with its two large trestle bridges on limestone pillars across the waterways.

A walk through the historic streets of St. Marys offers a first-hand look at the unique stunning limestone architecture and vibrant downtown core. The community's rich history is preserved and promoted by the St. Marys Museum & Archives who continue to tell the stories of the town through its exhibitions, special events and programs.

St. Marys is home to not only 7,200 residents, but the Canadian Baseball Hall of Fame and Museum and is the burial place of Arthur Meighen, Canada's 9th Prime Minister, Timothy Eaton who went on to become one of Canada's greatest retailers, who opened his first businesses in Canada in St. Marys and nearby Kirkton, Ontario.

The Town's present identity is very much shaped by its relationship to the natural wonder of the land, the spirit of its residents, and unique limestone architecture.

### 2.2 Town of St. Marys Fire Department

The Town of St. Marys Fire Department is steeped in rich history with its origins being traced back 1857. Since 1857, through two World Wars, and on into the new millennium, the St. Marys Fire Department has been protecting property and saving lives.

A Fire Chief is a top executive rank or commanding officer in a fire department. In May of 1885, William Moyes assumed the role of Fire Chief and was the first of many Fire Chiefs that would serve in the senior leadership role within the Fire Department.

Prior to 1974, the Fire Chief's position was a volunteer position. Don Swan was a dispatcher/driver with the Fire Department and in 1974, he was promoted to Full-Time Chief. Chief Swan was in that position until his retirement September 1992 when Dennis Brownlee was hired. Chief Brownlee retired in 2015 and Fire Chief Richard Anderson was hired in May 2016.

The Fire Department's personnel establishment in May 2016 was one Full-Time Fire Chief, and 24 paid-on-call fire fighters. Within the organisation, paid-on-call volunteers filled the positions of one Deputy Fire Chief, three Captains and 20 firefighters.

The Fire Department, until the reorganization in October 2016, operated with a Fire Chief in charge of the department.

The request for creating and hiring a new Part-Time Fire Prevention Officer position was presented to Council with a Formal Report on the 26<sup>th</sup> of July 2016 HR 2016-04 Fire department Staffing. The restructured organizational model and hiring of the Fire Prevention Officer was approved by Council. Tammy DeGraw was hired on the 17<sup>th</sup> of October 2016. The reorganization created a new structure with a Full-Time Fire Chief, one Part-Time Fire Prevention Officer, 24 paid-on-call firefighters consisting of one Deputy Fire Chief, three Captains and 20 firefighters.

The Fire Chief was responsible for day-to day operations and emergency calls within the emergency response area.

Each division of the Fire Department is the responsibility of the Fire Chief and is under the direction of the Fire Chief or a Member designated by the Fire Chief. Designated Members shall report to the Fire Chief on divisions and activities under their supervision and shall carry out all orders of the Fire Chief. The divisional functions are as follows:

- Administration and Support Services
- Fire Suppression/Emergency Response
- Fire Prevention
- Fire Education
- Training

The Fire Chief with prior approval of the Chief Administrative Officer, may re-organize or eliminate divisions or establish other divisions or may do all or any of these things or any combination of them as may be required to ensure the proper administration and efficient operation of the Town of St. Marys Fire Department and the effective management of fire protection services for the Corporation;

The Fire Chief may assign or re-assign Members to a division to assist in the administration and operation of that division;

Where the Fire Chief designates a Member to act in the position of an officer, the Member when so acting, has the responsibility of such officer and shall perform all the duties of the officer replaced.

## Section 3 Stakeholder Consultations

### 3.1 Consultation Schedule

Consultations were conducted with various stakeholders as follows:

- June 6, 2018 General meeting for all firefighters at the St. Marys Fire Department (Attendance 23 paid-on-call firefighters) (Note: Deputy attended for the full meeting)
- June 18, 2018 General meeting with the Fire Prevention Officer at the St. Marys Fire Department
- September 5, 2018 General meeting for all Fire Officers at St. Marys Fire Department (Attendance 3) (Note: Deputy Fire Chief attended for the full meeting)
- October 3, 2018 General meeting for all firefighters at the St. Marys Fire Department (Attendance 21 paid-on-call firefighters) (Note: Deputy attended for the full meeting)
- January 2, 2019 General meeting for all Fire Officers at St. Marys Fire Department (Attendance 3) (Note: Deputy Fire Chief attended for the full meeting)
- February 20, 2019 General meeting with the Fire Prevention Officer at the St. Marys Fire Department

### 3.2 Consultation Summary

A summary of our stakeholder consultations is provided in Appendix A: St. Marys Fire Master Plan Consultations Summary for the purposes of reflecting a comprehensive consultation process. The input received serve the purposes of providing background information and identifying key areas of concern for the various stakeholders. The input presented reflects both individual and group opinions and in some instances, subjective opinions on the matters.

The consultation format allowed an open-ended discussion to ensure stakeholders had the opportunity to bring forth any issues, concerns, or questions regarding the fire protection system for the community.

As part of the consultation process, the consultants solicited input specific to the subjects identified in Section 1.

## Section 4 Components of the Fire Master Plan

This section presents my findings and recommendations for inclusion in a Fire Master Plan for the Town of St. Marys Fire Department.

### 4.1 Governance

I have reviewed the applicable provincial legislation and regulations and municipal by-laws relative to the Fire Department, and have developed my recommendations for inclusion in the Fire Master Plan.

#### 4.1.1 Governance Overview

The Town of St. Marys Fire Department is established and regulated through By-Law No. 37-2001. A review of the by-law indicates a number of revisions are required to update it for accuracy and to define types and levels of service to be provided by the Town of St. Marys Fire Department.

The Fire Chief is responsible to the Chief Administrative Officer for proper administration and operation of the Fire Department including the delivery of fire protection services.

#### 4.1.2 Governance Analysis

The establishment and regulating by-law for a municipal fire department should include:

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

My review of the governance model for the Town of St. Marys Fire Department identified the current establishment and regulating by-law, Town of St. Marys By-Law Number 37-2001, includes most of the essential components identified above. However, it was noted that a number of additional areas that should be addressed, specifically, policy direction from Council on the types and levels of services to be delivered by the fire department, and the addition of an organizational chart into Appendix "A" to reflect the new model as approved by Council on October 17, 2016. It is recommended the establishment and regulating by-law be reviewed and revised to identify the types and services to be delivered by the Fire Department. These service types and levels then become corporate policy through ratification by Council. The current by-law speaks to the positions of Fire Chief, Deputy Fire Chief whereas the new model includes one Fire Prevention Officer.

**I note that authorization of these services by Council also commits Council to adequate funding to enable the Fire Department to deliver these services in an operationally effective and safe manner.**

#### 4.1.3 Recommendations for Governance

I recommend the By-law 37-2001 be reviewed and updated to:

1. Include a schedule defining the types and levels of services the department is expected to provide to the community.

2. Reflect the new organizational structure. The organizational chart needs to be added in Appendix “A” and should reflect the new organizational chart approved when the Fire Prevention Officer was hired October 17, 2016.

## 4.2 Service Delivery

I have made recommendations for service delivery in various sections of this report. I have recommended the types of services and levels of service be reviewed by the Town of St. Marys Fire Department and that Council authorizes the types and levels of services to be provided to the community through a schedule attached to the Establishing and regulating By-law for the fire department. I have provided a sample schedule (Appendix “B”) defining the types and levels of services that the Fire Department may be required to respond to in the Town.

### Facts:

- The Town is forecasting limited industrial or residential growth for the next 10 years. As a result, the Fire Master Plan should focus on review of the current services provided by the Fire Department with a view to optimizing the types and levels of services within the financial capabilities of the Town.
- Automatic Alarm non-fire related calls make up the majority of emergency responses. Followed by Motor Vehicle Collisions, Pre-Fire Conditions, Fires, Carbon Monoxide Alarms, Lift Assists, Unauthorised Open Air-burning Medical and Water/Ice Rescues.
- There has been a rationalization within the tiered response protocols for emergency medical calls.
- The Town has not adopted any policies specific to the types and levels of services to be delivered to the community by the St. Marys Fire Department.
- The Fire Department offers a range of public education and prevention and code enforcement Services and are generally executed by the Fire Chief and Fire Prevention Officer with the occasional help of the volunteer firefighters.
- The Town of St. Marys Fire Department has not received the Fire Underwriters Survey Industrial/Commercial Certification for its Water Tanker Shuttle service.

### 4.2.1 Fire Prevention and Public Fire and Life Safety Education

The first and second lines of defense in a community fire protection system are public fire and life safety education, and fire prevention and code enforcement. The preparation of the Fire Master Plan includes a review of the fire prevention program including fire inspections, investigations, and code enforcement, and public education programs and delivery mechanisms.

### 4.2.2 Fire Prevention Overview

Responsibility for fire inspections is included in the job description for the Fire Chief. It was noted the current policy for inspections is based on a complaint or request basis. The Fire Chief was maintaining the minimum standard by ensuring those inspections were completed. It was identified that the Town move from a basic reactive fire prevention policy to a more proactive policy in order to address the significant fire risks associated with the large number of industrial and small business operations in the Town.

It was made known by former Fire Chief Dennis Brownlee to former Councils that the Fire Department would require additional resources.

It was recommend the Town of St. Marys Fire Department establish a Part-Time Fire Prevention Officer position to conduct inspections, ensure code compliance, and provide fire safety education to

291 small business operations, industrial and vulnerable occupancies throughout the Town. This inspection position would work to conduct the following:

- Identify large & small manufacturing operations
- Develop a coordinated inspection system
- Increases awareness of fire safety issues among small manufacturing operators
- Provide important information to firefighters on potential hazards in case of emergency response

The request for creating and hiring a new Part-Time Fire Prevention Officer position was presented to Council with a Formal Report on the 26th of July 2016 HR 2016-04 Fire Department Staffing. The restructured organizational model and hiring of the Fire Prevention Officer was approved by Council. Tammy DeGraw was hired on the 17th of October 2016. This position was carried on when Tammy DeGraw resigned in October 2017 and Brian Leverton was hired on the 2<sup>nd</sup> of January 2018.

The current Fire Prevention Policy for St. Marys includes:

1. Emergency response statistics using the Standard Fire Incident Report
2. Fire investigations
3. Fire prevention inspection program – complaints, requests, routine, safety concerns, licensing, follow up, fireworks, and mortgage and resale
4. Smoke alarm program
5. Distribution of public fire safety information and media releases
6. Public displays, fire hall tours, open houses, Fire Safety trailer etc.
7. Lectures, demonstrations, presentations to the public
8. Simplified risk assessment and other needs analysis processes containing a current community fire profile identifying current public education and prevention needs.

The current fire prevention policy of the Town of St. Marys states:

- Fire prevention inspections are to be conducted for all complaints received by the Fire Department containing reports of potential fire code violations and/or potential fire hazards.
- Additional fire prevention inspections may be conducted of occupancies and buildings as deemed necessary to address the needs and circumstances of the community or a targeted risk.
- Appropriate action will be taken to ensure the elimination of serious fire hazards, immediate threats to life from fire and to enforce the Fire Code under the authority and in accordance with the provisions outlines in the Fire Protection and Prevention Act, 1997.

The Fire Chief provided the following information regarding fire prevention activities:

Complaints regarding contraventions of the Fire Code are investigated by the Fire Chief or Fire Prevention Officer and inspection orders issued if required. On average (based on 2018 Statistics), the Fire Prevention Officer experienced approximately 168 Routine, 37 Requests, 11 Complaints, 8 Licensing, 48 Follow up, 5 Safety Concerns, 8 Fire Drills, 7 Fire Works Inspections, 7 Occupancy Load, 24 Site Visits & 5 School Inspections.

Fire Safety Plans are reviewed and approved by the Fire Chief on average of 12 per year.

A smoke alarm program has been established. When Fire Department personnel respond to a structural pre-fire or fire situation, firefighting operations must ensure they have an All Clear and Under Control established. Prior to announcing a Loss Stop, in the Customer Stabilisation Stage of an emergency, firefighters will conduct an inspection of all Smoke/CO alarms. A Smoke/CO Alarm Program that has been established where in the event their Smoke/CO Alarms are found not to be in

good operating condition a Smoke/CO Alarm will be provided for a period of time, not exceeding 10 days, to allow the resident to purchase their own. The officer in charge who completes the appropriate form and will record the status of smoke alarms on the incident report. The Fire Prevention Officer Conducts follow up inspection to ensure the resident has properly installed working Smoke/CO Alarms and recover the departments Smoke/CO alarms.

Fire-cause determination is conducted by the Fire Chief and/or Fire Prevention Officer who is certified by OFM Core and Advance Fire-cause determination. No other member of the Fire Department is trained or experienced to conduct fire-cause investigations.

The Town of St. Marys has a large industrial base specialising in a wide range of production including manufacturing full-service animal nutrition and feeding solutions for all major livestock, poultry species and pet food, manufacture of interior automobile components, full sized food manufacturer, production and conversion of corrugated products, tissue paper and specialty products and cement. The majority of large fires occur in these plants with the exception of residential and rural fires.

The Fire Chief indicates fires in these industrial buildings should be considered within the Fire Master Plan and suggests the workload involved to inspect these buildings be placed with the Fire Prevention Officer. He/she shall undertake proactive inspections in this area and develop Pre-Fire Plans for the Fire Department. With the limited amount of time the volunteer firefighters spend at the Fire Department (two hour training nights, three times a month) is not enough time to complete these inspections.

Burn Permits are issued both by the Fire Chief and the Fire Prevention Officer. The following statistics reflect the number of burn permits from 2015 to 2018.

2015 – 95 – St. Marys & 43 – Perth South  
2016 – 132 - St. Marys & 76 – Perth South  
2017 – 172 - St. Marys & 57 - Perth South  
2018 – 255 - St. Marys & 66 – Perth South

#### 4.2.3 Public Fire and Life Safety Education

Public Education is considered to be the first line of defense in a community fire protection system. Members of an informed community recognize their personal responsibilities regarding fire and life safety in their homes, workplaces and community forums; thus, adding a public understanding and assistance to the overall community fire protection system. This is particularly important in rural areas where emergency response turnout and travel times may be extended.

#### 4.2.4 Public Education and Life Safety Overview:

The Town of St. Marys Fire Department public education program is the responsibility of the Fire Chief who is a Certified Public Fire and Life Safety Educator. The Fire Department reports the following public education initiatives:

1. A smoke alarm program is conducted by the Fire Chief, Fire Prevention Officer and suppression crews.
2. Media advertisements are posted in local papers and in the social media promoting fire safety, and emergency preparedness. This occurs throughout the year with a seasonal focus.
3. Fire Hall tours are conducted upon request and reportedly occur, on average, eight times per year.
4. An annual “door-to-door” campaign is held every spring where firefighters visit 1,000 homes in one evening distributing fire prevention education.

5. A Fire Department open house is conducted during Fire Prevention Week with demonstrations relating to fire extinguishers, safe home cooking, and fire safety planning. Public education materials are also distributed. The Town of St. Marys Fire Department reports that 150 - 200 residents attend including many from the Mennonite farming population.
6. Fire drills are conducted at the schools during fire prevention week and fire escape planning discussions are included.
7. On an annual basis the Fire Chief and Fire Prevention Officer deliver:
  - a. A seniors' fire safety program
  - b. Vulnerable occupancy fire safety program; and
  - c. A school fire safety program
8. A Fire Extinguisher Training Program is delivered by the Fire Chief or Fire Prevention Officer on request.
9. The Arson Prevention Program for Children (TAPP-C) junior fire setter program is available upon request.
10. Community groups and organizations may request fire safety related presentations, demonstrations and tours of the fire stations.
11. Fire safety education materials are distributed to address community fire safety issues and concerns based upon needs and circumstances.

Public education services face obstacles including:

- Limited time for the Fire Chief and Fire Prevention Officer to develop and deliver programs and attend public education events.
- Lack of code compliance and good fire safety practices in small farm shops are major fire risks, and the Fire Chief and Fire Prevention Officer have limited time to visit these occupancies.
- The Fire Department does not have adequate information to determine the status of working smoke alarms and carbon monoxide alarms in homes in the Town, particularly in the rural Areas of Perth South.

#### 4.2.5 Fire Prevention and Public Education Effectiveness

I am recommending a number of changes to enhance the Fire Department's current fire prevention and public education efforts. Communities with focused and adequately resourced prevention and public education efforts experience reduced fire risks which translate into reduced fire losses in the community and increased fire and life safety for its citizens. This is particularly true in low-density urban and rural areas that may experience longer emergency response times from a paid on-call fire department.

Numerous studies over many years have recognized the value of well-designed and effectively delivered prevention and education programs. A 1990 report on case studies of public fire safety education programs concluded that:

*This collection of case studies not only shows that public education works, but demonstrates that it is probably more productive in terms of casualties and dollar loss saved per staff-year than any other aspect of fire protection. It is the height of foolhardiness to cut public fire education efforts if one is interested in the public's safety, and in the productivity of fire departments. Evidence in this report suggests that tripling the size of public education efforts, which can be accomplished by a minor shift in staff assignments in most departments, would produce enormous beneficial results.*

The same report includes the following “success factors” that the best public education programs have in common and are relevant to the development of programs for the Town of St. Marys Fire Department:

- They have champions who see the program through and lead its implementation.
- They carefully target a particular aspect of fire safety, or strike in force across a broad front, over and over, reaching a large percentage of the population.
- Market research in one form or another is used to tailor the programs to their intended audience.
- The programs reach a significant percentage of their target audience, with public educators often going door to door, or through the media to have broader impact.
- They often repeat messages over and over just as an ad campaign would.
- The good programs are adaptable, changing goals and materials as the fire problem changes.

Conclusive support for the *Proving Public Fire Education Works* report was provided by a study involving the Surrey, B.C. Fire Service, the University of Fraser Valley, B.C., and the John Jay College of Criminal Justice, NY. This report was published in *The Journal of Safety Research* and is available online.

Essentially, the study involved public fire safety education efforts delivered by firefighters through a series of door to door visits to one group (cluster) of homes, and a randomized control cluster of homes that did not receive the visits by the firefighters.

The following main findings emerged from this study:

- Relative to cluster controls there was a 4.4 times greater reduction in the rate of fires for homes visited by the program (63.9% reduction in the annual rate of fires over the evaluation period in intervention areas), compared to 14.6% reduction in control areas.
- Increased activation of (smoke) alarms when fires occurred post-intervention with no increase for controls.
- Increased containment of fires to the object of origin post-intervention and no increase for controls.
- Trends indicative of reduced dollar damage for fires post-intervention with no trend for controls.

My assessment of the Town of St. Marys Fire Department fire prevention and public education efforts concludes the most effective means to improve fire protection in the community is through enhanced inspection, code enforcement, and fire safety education initiatives. Access to comprehensive data regarding fire-cause in the community through enhanced fire-cause determination and a review of the level of compliance to the mandatory provision requiring working smoke alarms and carbon monoxide alarms in dwelling units will enable the efficient delivery of targeted inspection and public education efforts.

The need to address the history of fire incidents in small and large manufacturing facilities throughout the Town requires a concerted effort over a number of years that involves inspection and fire safety education in these occupancies.

#### 4.2.6 Recommendations for Fire Prevention and Public Education

In order to achieve enhanced fire prevention and education I recommend

1. The Fire Department work with other Town departments to identify all small & large manufacturing operations and develop a coordinated inspection system utilizing resources, including paid-on-call firefighters as appropriate.
2. The Town of St. Marys Fire Department enhances its fire-cause determination capabilities to assist with focused fire prevention and education initiatives.
3. The Town of St. Marys Fire Department create a part-time position of Public Educator
4. The Town of St. Marys Fire Department conduct a study to determine the status of working smoke alarms and carbon monoxide alarms in the community.
5. The Town of St. Marys Fire Department continue the existing public education programs in the schools and explore opportunities to enhance fire and life safety education in the school system in Perth South.

### 4.3 Emergency Response

Emergency response is the third line of defense in a community fire protection system. It includes emergency response call volume, types and trends, apparatus deployment, response staffing and firefighter deployment and safety.

#### 4.3.1 Emergency Response Overview

The Town of St. Marys Fire Department responds to an average of 88 emergency calls annually based on 2008 – 2018 data. There has been a steady increase in calls over 10 years where at least three of those years the fire department responded to 55 calls compared to 140 calls in 2018.

For statistical purposes, we categorized incidents as:

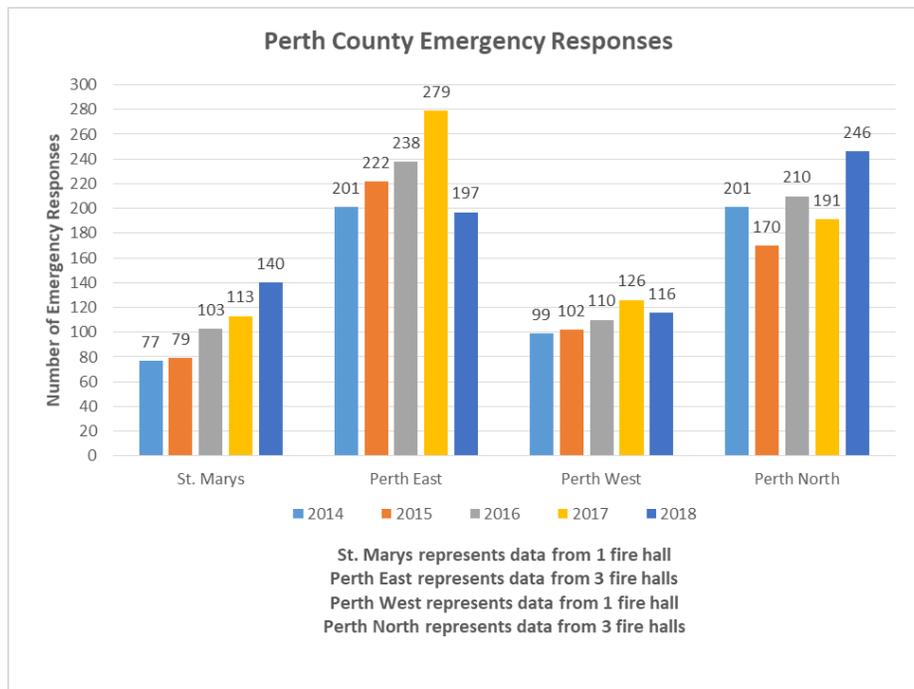
- Automatic Alarms
- Motor Vehicle Collisions
- Other Pre-Fire Conditions
- Fires
- CO Alarms
- Lift Assists
- Unauthorised Open Air Burns
- Medical Responses
- Water & Ice Rescue

Table 1 - Total Incidents

Year	Responses	Automatic Alarms - No Fires		Percentage of calls		Motor Vehicle Collisions		Percentage of calls		Other Pre-Fire Conditions		Percentage of calls		Fires		Percentage of calls		Carbon monoxide Alarms		Percentage of calls		Lift Assits		Percentage of calls		Unauthorised Open Air Burning		Percentage of calls		Medical Responses		Percentage of calls		Water & Ice Rescue		Percentage of calls	
		Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage				
2018	140 Responses	47	34%	15	11%	21	15%	16	11%	20	14%	1	1%	9	6%	11	8%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
2017	113 Responses	38	34%	29	26%	14	12%	11	9%	7	6%	5	4%	5	4%	2	2%	2	2%	2	2%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
2016	103 Responses	20	19%	30	29%	21	20%	23	22%	1	1%	0	0%	6	5%	2	2%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
2015	79 Responses	29	37%	18	23%	12	15%	14	18%	1	1%	0	0%	4	5%	0	0%	1	1%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
2014	77 Responses	44	57%	11	14%	8	10%	11	16%	0	0%	0	0%	3	4%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
2013	55 Responses	19	35%	16	29%	10	18%	9	16%	1	2%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
2012	86 Responses	36	41%	20	23%	7	8%	21	24%	0	0%	0	0%	2	2%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
2011	64 Responses	35	55%	4	6%	8	12%	17	27%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
2010	55 Responses	25	45%	5	9%	5	9%	16	29%	1	2%	0	0%	3	5%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
2009	54 Responses	26	48%	3	5%	1	2%	20	37%	0	0%	3	5%	1	2%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
2008	68 Responses	38	56%	3	5%	1	1%	19	28%	1	1%	5	7%	0	0%	1	1%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				

In general, the fire service have seen a steady increase in call volume in St. Marys and with fire departments in Perth County.

Table 2 – Perth County Emergency Responses



The increase in call volume in 2018 is predominately related to Automated Alarms, Carbon Monoxide and emergency medical calls. The Fire Department will respond to medical calls if Paramedics are

not able to reach the address within 10 minutes due to simultaneous emergency responses or severe environmental weather conditions.

The success of response to emergency incidents is dependent upon timely response by an adequate number of first response personnel followed by adequate numbers of secondary responders. I was able to access response data specific enough to determine the adequacy of response time and sequence of numbers of responding personnel.

The information presented in Table 3 provides a very high-level analysis of fire response capabilities. This presents five-year averages for response times in minutes, number and percentage of the Fire Department responders and dollar loss based on 2014 to 2018 data available from the Office of the Fire Marshal and Emergency Management.

A high-level assessment of responses, responses time, number of responding personnel and dollar loss was completed for 5 years 2014 to 2018. The results are shown in Table 3.

**Table 3 – High Level Fire Response Assessment**

<i>Year</i>	<i>Responses</i>	<i>Average Time from Dispatch to on Scene</i>	<i>Percentage of Firefighters on Scene</i>	<i>Average Number of Firefighters on Scene</i>	<i>Dollar Loss</i>
<b>2018</b>	<b>140 Responses</b>	<b>6:24</b>	<b>71%</b>	<b>17</b>	<b>\$2,125,000</b>
<b>2017</b>	<b>113 Responses</b>	<b>7:18</b>	<b>71%</b>	<b>17</b>	<b>\$3,364,000</b>
<b>2016</b>	<b>103 Responses</b>	<b>7.49</b>	<b>75%</b>	<b>18</b>	<b>\$638,000</b>
<b>2015</b>	<b>79 Responses</b>	<b>7:15</b>	<b>67%</b>	<b>16</b>	<b>\$443,900</b>
<b>2014</b>	<b>77 Responses</b>	<b>5:57</b>	<b>75%</b>	<b>17</b>	<b>\$132,800</b>

I recommend the Fire Department continues to review statistics on the incidents by type of emergency, and turnout, travel, and arrival times by the number of responders. This will assist the Fire Department and Council in determining compliance to service delivery standards that are appropriate to the needs and circumstances of the community. This information should also become part of an annual fire department report to Council.

#### 4.4 Firefighter Training

I have reviewed the Firefighter Training Program, including recruit training, firefighter training, and officer training.

#### 4.4.1 Training Overview “Grandfathering”

It was identified in 2016 that the Town originally took advantage of the 2013/14 “grandfathering” process, which grandfathered the Fire Fighters to NFPA 1001, Level 1. That meant that all firefighters, including the Deputy Fire Chief and Officers, were qualified only to the level of an apprentice firefighter. In June 2016 the St. Marys Fire Department requested that the “grandfathering” process be opened again however this request was denied and the “grandfathering” process was to remain closed to all departments. In January 2017, Ministry of Community Safety & Correctional Services (MCSCS) established an advisory Fire Safety Technical Table (the Table) as part of a mandate commitment to provide recommendations to look at reopening the “grandfathering” process and to address public safety and firefighter safety gaps identified by the Coroner’s Inquests over the last several years. On March 11, 2018 the Office of the Fire Marshal and Emergency Management (OFMEM) took requests from Fire Departments across Ontario to reopen the “Grandfathering” process again to all existing Fire Departments. Town of St. Marys Fire Department applied again to have the firefighters and Fire Officers receive the equivalent qualifications to the position they were serving in.

On the 7<sup>th</sup> of November 2018 the Town of St. Marys Fire Department personnel were informed that on behalf of the Office of the Fire Marshal and Emergency Management (OFMEM), they had all met the grandfathering requirements for National Fire Protection Association (NFPA) standards based on experience.

Considerable effort has been made to hire and train four recruits in November 2018. A new St. Marys Fire Department Volunteer Firefighter Recruit Orientation Guide was created including a Job specific Physical appraisal system.

All four candidates had firefighting qualifications from certified Fire Colleges. However, in the future, the Town of Fire Department may find that applicants do not have any firefighting qualifications and we may have to send these recruits to a certified school to obtain the minimum qualifications. Further notes on training are as follows:

1. While some effort has been made to provide training at the officer level, additional officer training is required, particularly as the department has recently promoted a number of personnel into officer positions.
2. Officers would like to have a greater level of training. This should be a priority for the department during the early stages of the 10-year Fire Master Plan. Given limited opportunities to attend provincially available officer training programs, it may be necessary to develop some local officer training programs focused on fundamental officer roles such as incident command and firefighter health and safety.
3. Paid-on-call firefighters are finding it difficult to attend training sessions as currently scheduled.
4. Although it is a majority opinion of the members of the department that the training program has seen significant improvements since the arrival of the new Fire Chief, there are still some concerns about consistency of training across the department and time available to conduct and attend training sessions.
5. Training records are readily available to Officers who are responsible for training and ensuring their station members are current.

#### 4.4.2 Proposed New Training Model

We are proposing a new training model for the Town of St. Marys Fire Department to address concerns noted in the interviews with firefighters and officers.

I propose that a five-year training schedule be developed. The schedule must include required updates for such things as first aid and CPR. The training program should consider the task level training needs of firefighters and the incident management training needs for officers. The five-year schedule should also identify training sessions that need to be delivered annually, once every two years, or perhaps just once in the five-year cycle depending on the level of service provided and the intricacies of the training required.

Because consistency of training has been raised as a concern, I propose that a Training Officer position be created for the Town of St. Marys Fire Department to monitor and deliver training in a consistent manner. The Training Officer position would work together with the Fire Chief to develop programs and teaching plans in order to provide consistency across the department. A job description should be developed for this position.

Firefighters and officers expressed concern about the need to attend training sessions on the specific Training Night, causing scheduling conflicts with employment, personal, and family commitments.

I recommend:

1. A flexible delivery model that allows firefighters to attend training sessions on alternate night's meeting the needs of the majority.

It was also noted by firefighters would like to train with firefighters from other stations in the surrounding area. Having multiple stations train together provides for a more effective response during multiple station emergencies.

2. This be scheduled into the five-year training schedule. Firefighter health and safety is always a critical component of any training program.
3. That the training schedule include a regular review of the Ministry of Labour Section 21 Firefighter Health and Safety Guidelines.

Currently, the department training utilizes International Fire Service Training Association (IFSTA) manuals and a manual check off system. Training records are entered into the FirePro records management system by the administrative assistant. During consultations, the officers expressed a desire to receive training and the authority to directly enter the training records into FirePro.

In order to improve overall workflow efficiency and accessibility of training records at the Fire Department level, I recommend that officers receive the necessary training and authority to use the FirePro system for inputting and accessing personnel training records. The FirePro program would have to be added to a computer that is accessible by the officers.

#### 4.4.3 Training Recommendations

I recommend:

1. The Fire Department develops a five-year training program/schedule.
2. The five-year training schedule should take into consideration the types and level of services delivered, as approved by council, and address the training required to deliver those services at the operational level.
3. The five-year training schedule should include mandated training requirements (such as first aid and CPR renewals), and the priorities for the department based on frequency and hazard level of calls.

4. The training program should include a regular review of the Ministry of Labour Fire Fighter Health and Safety Guidelines.
5. The five-year training program should provide opportunities for multiple station training exercises that include task and incident command level simulations.
6. The Fire Department implements an officer training program that includes incident command, fire fighter health and safety, and appropriate training in fire department administrative procedures.
7. The Fire Department establishes a training program for future officers.
8. The Fire Department creates a training officer position.
9. The Fire Department schedules training on a different night of the week to accommodate the majority of firefighters that can attend the same training sessions within a flexible schedule.
10. Officers should receive the necessary training to make use of the department's records management system (FirePro), to enter and access training records.

## 4.5 Administration

I have reviewed the administration of the Fire Department, including organization, policies and procedures, administrative support, record keeping, information management, purchasing, inventory control, public and media relations, and customer service.

### 4.5.1 Administration Overview

The administrative functions of the Town of Fire Department are handled primarily by the Fire Chief. Administrative responsibilities and functions of the Deputy Fire Chief and Captain positions are limited by access and knowledge of the administrative systems, particularly the FirePro records management system.

The following concerns or questions were conveyed during our consultations regarding administration of the department:

- There needs to be a dedicated computer for the Deputy Fire Chief and Captains in order for them to complete fire reports and training records into the FirePro system.
- The records management program requires hardware upgrades in order to be used more effectively.
- Standard Operating Guidelines (SOGs) are dated, and firefighters would like to provide input into the revision and development of SOGs.

### 4.5.2 Organization

Currently, the Fire Department is structured to operate with a Fire Chief, one Fire Prevention Officer, one Deputy Chief, three Captains' and 21 firefighters. Job requirements and responsibilities are identified in job descriptions for all positions.

During consultations, concerns were expressed regarding the effectiveness of the organizational model and not having three Lieutenant positions established. It's apparent the Fire Department is still undergoing some change with the appreciation of having qualified officers on the fire ground for effective command, training coordination and administrative duties. In my opinion, the organizational model does not meet the leadership needs of the Town of St. Marys Fire Department. The current model is workable, however establishing three Lieutenant positions would allow for more supervision on the fire ground in the absence of the senior fire officers. As well it allows for succession training in the event senior officers retire or resign.

We have also identified the need for a Training Officer in the Fire Department and a part-time Public Educator.

I recommend:

1. The management team of the Fire Chief and the Deputy Fire Chief meet with the Captains to review job descriptions and ensure a clear understanding of roles and responsibilities by all parties. Efforts should be made to ensure that management team meetings are held regularly (once a month is recommended) to ensure an ongoing and open flow of communication through the department. Efforts should also be made to ensure the management team meetings are inclusive and effective in addressing concerns and issues that may arise.

#### 4.5.3 Policies and Procedures

Policies and Procedures of a Fire Department essentially fall into three areas.

Firstly, there are general corporate policies and procedures that direct the administrative operations of the department where appropriate.

Secondly, Council must establish the types and levels of services to be provided to the community by the Town of St. Marys Fire Department through an Establishing and Regulating By-law.

Finally, the Fire Chief is then enabled to develop policies and procedures for the department, including administrative and operational guidelines to deliver the approved services at the operational level. The operational policies and procedures are established and communicated to the Town of St. Marys Fire Department members through standard operating guidelines (SOGs).

I have recommended in Section 4.1 Governance the types and levels of services provided by the Town of St. Marys Fire Department be reviewed and then be approved according to the needs and circumstances of the Town of St. Marys.

Concern was expressed, during consultations, with the knowledge and understanding of policies and procedures throughout the department. In particular, there is an interest in reviewing the standard operating procedures for currency and clarity.

The Fire Department undertake a thorough review of all policies and procedures and standard operating guidelines following the approval by Council of the types and levels of services to be provided to the community by the Fire Department. This review should be conducted within an inclusive process that provides opportunity for input from department members. While recognizing the Fire Chief has the authority and responsibility for final approval of the policies and procedures, successful change management and acceptance of the new policies and procedures by the members of an organization depends upon the sense of contribution and final ownership of the policies and procedures of the organization. The educational value gained from participating in development of policies and procedures is a benefit of an inclusive process.

#### 4.5.4 Administrative Support

The Fire Chief is currently not assisted in the department's administrative responsibilities. The Fire Chief has expressed a concern administrative report time is not adequate to the Fire Department's needs and impacts the chief's ability to perform other Fire Department responsibilities such as inspections, training, equipment procurement, policy review and development, and general oversight responsibilities for the department.

A review for a part-time Administrative Assistant should be conducted. A job description for this position would have to be created to indicate the responsibilities within the department. This position

would provide administrative support to the Fire Chief, the Deputy Fire Chief and the Fire Prevention Officer. This could be a part-time position shared with another internal department. The Fire Chief, would have to allocate the percentage of time allocated to each department in the job description. The Fire Chief's understanding is that the intent would be to split this resource equally between the Fire Department and other assigned department. Administrative support hours available for Fire Department would be reflective of the increase in number of calls and the changes to the organizational structure as this might add to the administrative support needs.

I recommend:

1. The Town of St. Marys conduct a time/workload study of the administrative functions of the Fire Department to ensure that adequate resources are allocated.

#### 4.5.5 Record Keeping/Information Management

The Town of St. Marys Fire Department utilizes the FirePro records management system for incident reporting and training records.

Emergency incident forms are completed manually by the firefighter that assumes the dispatch position and Stratford Fire Dispatch sends an electronic copy of their Dispatch Report. Fire Chief who then enters the data into the FirePro system. The Fire Chief then forwards the report to the Office of the Fire Marshal and Emergency Management. There are efficiency gains for the Fire Department administration if officers are trained and authorized to enter the incident information directly into the FirePro system at the fire department level. This would primarily happen during the fire chief's absence. Concerns have been expressed about the information technology hardware available at the fire hall. There are no computers available for the officers to work from. As well if the offers were to have a dedicated computer a FirePro account would be required. Consistent use of an electronic records management system, such as FirePro, will ensure efficient, consistent and accurate records management.

I recommend:

- 1 The Town of St. Marys undertake the necessary hardware upgrades to make the most efficient and effective use of the FirePro system at the department level. I further recommend the Town of St. Marys Fire Department provides the training required to the officers to utilize the FirePro system for the recording of emergency incidents. I have previously made a similar recommendation regarding the use of the FirePro system for training records in Section 4.4.2.

#### 4.5.6 Public and Media Relations

One of the primary reasons for developing a Fire Master Plan is to provide accurate information to the community regarding the structure and costs associated with the fire department operations.

I recommend:

1. Following adoption of the Fire Master Plan for the Town of St. Marys Fire Department, the Town of St. Marys undertake a number of public information efforts to communicate the content of the Fire Master Plan to the community, including among other things:
  - An open house for presentation of the Fire Master Plan to the public
  - Access to the Fire Master Plan on the Town website
  - Distribution of the content of the Fire Master Plan to local media
  - Development of a social media program for public information and public education initiatives
  - Presentation of the Fire Master Plan to the members of the Fire Department

#### 4.5.7 Customer Service

Customer Service for the Town of St. Marys Fire Department is necessarily tied to the service delivery standards provided by the department to the community. We have previously recommended delivery service standards be developed by the fire department and approved by Council. Customer service delivered by the fire department is then measured against these service delivery standards.

Upon approval of the service delivery standards, I recommend:

1. A monitoring process be implemented and that the Fire Chief report to Council annually regarding the department's compliance to those standards. Areas where the department is not able to achieve compliance to those standards should be noted with recommendations to close any gaps in service delivery.

Guidance for development of service delivery standards and reporting requirements can be found in The National Fire Protection Association standard, "Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations by Volunteer Fire Departments, 2014 Edition."

2. The Town of St. Marys Fire Department present a report to Council annually, indicating its compliance to Council approved service delivery standards.

#### 4.6 Finance

One of the primary concerns expressed during our consultations is the replacement of vehicles. My preliminary review indicates the funding of reserves for equipment replacement is appropriate to the schedule for replacement indicated by the 10-year Capital Budget with regards to fire vehicles.

#### 4.7 Human Resources

I have reviewed the Fire Department staffing, organizational structure, ratio of officers to firefighters, firefighter recruitment and retention, job descriptions, remuneration of full-time and paid-on-call staff, promotional policy, succession planning, and health and safety.

##### 4.7.1 Human Resources Overview

1. The Fire Department underwent an organizational restructuring in 2016 to create the current model with a Fire Chief, one Fire Prevention Officer, one Deputy Fire Chief, three Captains, and firefighters.
2. There is a general consensus the department is operating more consistently with this new model. However, there continues to be questions from fire officers and firefighters about the addition of Lieutenants within the department.
3. Job descriptions for the positions of Fire Chief, Fire Prevention Officer, Deputy Fire Chief, Captain, and firefighters have been provided and reviewed.
4. Fire Chief has created a job description for a Lieutenant and is ready for review by HR.

#### 4.8 Fire Department Staffing

I have reviewed the staffing model and level for the Fire Department based on the 2016 restructuring and concur the organizational structure and number of managerial positions (Fire Chief, one Fire Prevention Officer, one Deputy Fire Chief, three Captains) is sufficient to the department. I have recommended a time/workload study of the administrative support position (Section 4.5.4) and recommended that the job descriptions be reviewed by the Fire Chief, Deputy

Chief, Fire Prevention Officer and Captains (Section 4.5.2) to ensure a clear understanding of job roles and responsibilities by all involved. Lieutenant positions be reviewed and presented to council for approval.

#### 4.8.1 Ratio of Officers to Firefighters

Assessing the adequacy or suitability of the officer to firefighter ratio, for this review, has been primarily focused on ensuring there is adequate officer supervision and direction at emergency scenes. The organizational model for the Fire Department indicates there is a ratio of five officers (one Fire Chief, one Fire Prevention Officer, one Deputy Fire Chief, three Captains) to 21 firefighters in each station. I note these numbers may vary slightly over time. Common fire fighter standards recommend a company of four personnel including one officer, or a ratio of one officer to every three firefighters.

Adequacy of response by a sufficient number of officers in a paid-on-call Fire Department can be problematic. However, emergency responses are monitored by the Fire Chief and or the Deputy Fire Chief who ensure adequate officer response by responding themselves to provide supervision at emergency scenes. The department has also recently introduced an enhanced paging system called “Active 911” which provides immediate feedback on the personnel responding to an emergency call to ensure an officer is responding.

The division of responsibilities between the Fire Chief, Deputy Fire Chief and Captain’s provides a senior officer for emergency scene oversight and assumption of command by a senior manager when appropriate. The division of day-to-day work load and responsibilities is primarily assumed by the Fire Chief. However, there is a need for review and clarification of the roles and responsibilities for each position and have made that recommendation in (Section 4.5.2) of this report.

#### 4.8.2 Remuneration of Fire Department Staff

A review was conducted for the remuneration rates for paid on-call management, officer and firefighter positions of the Town of St. Marys Fire Department. A review of five nearby and similar paid on-call fire departments with a full-time fire chief and paid on-call staff was conducted for comparison purposes. The available data received is presented in Table 4. For the purposes of confidentiality in a public document, the comparable municipalities are identified as FD1, FD2, FD3, FD 4 and FD5. The municipalities have been identified to the Chief Administrative Officer and the Fire Chief. The Town of St. Marys Fire Department are in line with positions in similar, local fire departments.

**Table 4 - Remuneration of Full time and Paid on call Fire Department Staff**

	Full Day Training	1/2 Day Training	Mileage	Alarm	Practice (flat rate)	Standby
FD1	16.25	19.76	Y	29.93	39.90	176.77 every 4th weekend
FD2	18.75	18.75	Y	32.85	65.71	176.77 every 4th weekend
FD3	20.00	27.50	Y	22.97	\$2,040/annually*	
FD4	21.50	47.43	Y		Unavailable	Unavailable
FD5	30.00	30.00	Y	21.00	21.00	None
St Marys	185.76	93.79	Y	32.27	42.05	1,200 annually

## 4.9 Facilities

### 4.9.1 Facility Location

Optimal facility location is comprised of several factors including: a) call volume and frequency; b) availability and location of paid on-call firefighters; and c) the geographic and address area that can be covered in the municipality.

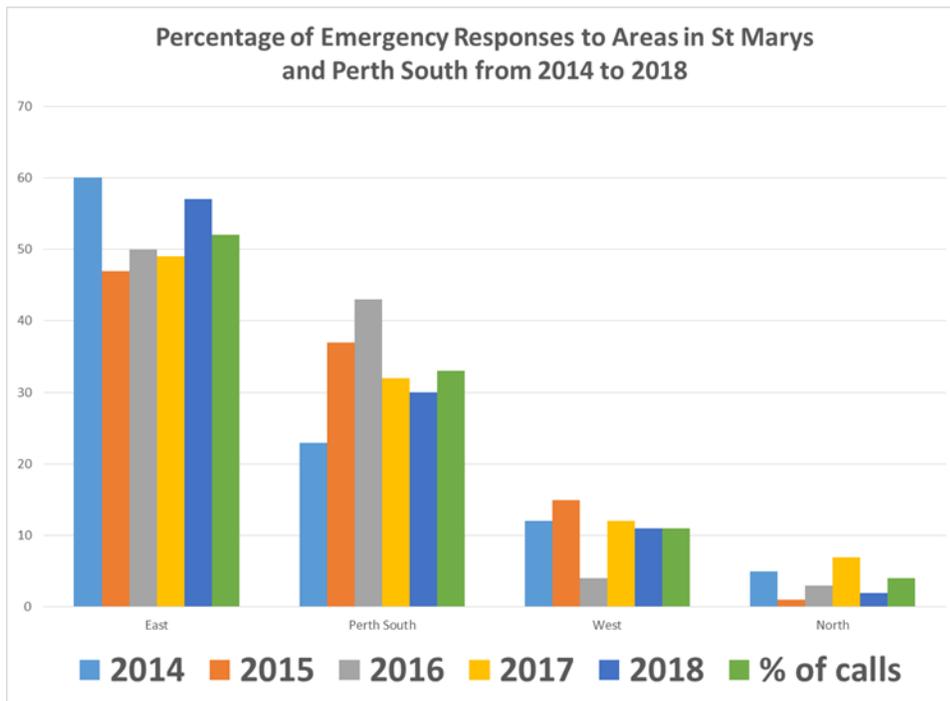
The Fire Hall is located at 172 James St. South, St. Marys.

### 4.9.2 Incident Locations and Statistical Analysis

#### Preferred Location for a Fire Hall in St. Marys

To help determine if the James Street South corridor is the best location for a fire hall in St. Marys, the Fire Chief has completed an assessment of call locations in the past five years. The chart below indicates the historical locations of call responses:

Table 5 – Percentage of Emergency Responses in St. Marys and Perth South



#### LEGEND:

- East = Anything East of the Thames River, and south of Trout Creek to the Town's limits.
- West = Anything West of the Thames River to the Town's limits.
- North = Anything North of Trout Creek, and east of the Thames River, to the Town's limits.
- Perth South - Anything within our response area outside of Town limits.

From this analysis, the Fire Chief has concluded that the preferred location for a fire hall in St. Marys is within the James Street corridor. The key points in coming to this conclusion include:

- 52% of emergency responses occur on the East side of St. Marys. The primary reason is that majority of the Town's residential occupancies are on the east side of Town and within a one-kilometer radius of the Fire Hall. In addition, there are two schools (Little Falls Public School and DCVI), Kingsway Lodge (vulnerable occupancies), the Pyramid Recreation Centre and most of the high hazard industrial buildings within one kilometre of the current fire hall.
- Given the location of the majority of the calls, an average response time of approximately 4-5 minutes from the time the Fire Department is dispatched to the time of arrival on scene can be achieved for the eastern and southern portions of the Town.
- Allows fire vehicles a direct route to Hwy 7, Elginfield Rd, Road 119 where 26.6% of Motor Vehicle Collision responses occurred in 2017/2018 (8 of 30 MVC calls).

Staff have also considered if the current property is the best property to be locate. After some review, we have determined that the existing property is the preferred location due to its large size, the fact that the Town owns the lot immediately beside the fire hall, and the fact that the unopened Park Street road allowance exists beside the property providing the opportunity for future access.

Consideration was given to purchasing land to the south of the current Fire Hall because this would allow for very similar response options and continued operations. Based on preliminary discussions it was determined that the value of vacant land in this area is costly, and that the Town may not necessarily recoup the land purchase costs through the sale of the existing fire hall location.

Consideration was also given to locating at the Municipal Operations Centre. This location is not preferred due to the risk of potential traffic conflict with the other uses at the facility during a fire call. In addition, the presence of steep hills on either side of the Municipal Operation Centre are not ideal when responding to a call in winter conditions.

### 4.9.3 Firefighter Addresses

Identifying the residences of paid-on-call firefighters serving the Town of St. Marys Fire Department was conducted. The addresses are predominately located within the population centre of the Town of St. Marys as are the majority of incidents.

The Town of St. Marys has a policy in place that states a paid-on-call firefighter must have the ability to respond to the Fire Hall within 10 minutes. Having this policy in place maintains an optimal level of firefighter turnout and reduced travel time to the fire hall. If this policy was not established it would result in a potential doubling of the current response times to emergency scenes.

The average amount of firefighters that respond to emergency calls are 71.2% or 17 firefighter per call.

### 4.9.4 Recommendation for Fire Hall Facility Needs Review

During the 2018 budget deliberations, Council reviewed information about the pending equipment purchases for the Fire Department. This included the preferred method of procuring a replacement aerial truck (new or used), the renovations that may be required to the building, and whether or not the overall order of the planned equipment replacements is correct (i.e. should another truck be replaced before the aerial truck). Through this discussion, Council provided the following direction to Staff:

**Resolution 2018-01-16-08**

**THAT** a report from staff be provided to Council by August 31, 2018 regarding the impact to the Fire Hall of the proposed capital purchase of a new aerial ladder truck.

**Resolution 2018-01-30-03**

**THAT** staff be directed to review the Fire Department's Short Term Capital Plan and report back to Council by August 31 on the Capital Plan for fire equipment replacement and the preferred procurement approaches for the equipment.

Staff presented to Council at the August 13, 2018 Strategic Priorities Committee meeting and reported on how the purchase of a new aerial ladder truck may require a renovation to the fire hall to accommodate its size.

Council considered the report and requested that staff report back with additional information on the topic, including:

- Location
- Needs Analysis
- Scope of work and detailed budget
- Construction planning and fire department operations

Staff presented to Council at the January 15, 2019 Draft Capital and Operating Budget Review through a Formal Report CAO 08-2019 Fire Hall Facility Needs review information regarding the fire hall facility needs review, and to present various build options, scopes of work, and project budgets for consideration.

Staff reported back to Council on the information above, as well as other information gathered by staff through a review of the Fire Department's facility needs. The facility needs review was completed through collaboration by Fire Department, Building/Development and Finance Staff.

A study of existing conditions and assessment for the St. Marys Fire Hall was conducted. The Fire Hall is in poor condition, and does not serve the purposes of the Fire Department and firefighters. Design of a new Fire Hall should consider health and safety recommendations and guidelines for fire stations. Guidance can be found in The Ontario Ministry of Labour Section 21 Fire Service Health and Safety Manual and various National Fire Protection Association standards for fire station design.

Based on the needs identified, the Building/Development Department had calculated that 2,800 to 3200 sq.ft. of new usable space is required.

Four options were presented to Council for their consideration.

- Option #1 – Renovate to Meet Minimum Requirements
- Option #2 – Renovate to Meet Recommended Requirements
- Option #3 – Build New to Meet Current and Future Requirements
- Option #4 – Do Nothing

After careful deliberation, Council chose Option#2 - Renovate to Meet Recommended Requirements. This was based on some of the following:

- The Building Department has reviewed the current building and has determined that the structure is sound and can be renovated.
- It is staff's recommendation that if the renovate option is chosen, that Layout #2 (i.e. Option #3 - Renovate to Meet Recommended Requirements) is preferred because it better positions the Fire Department for future growth.

- The forecasted cost of the preferred renovation option is \$1,636,800. For 2019, Council would need to approve the design budget for the project, currently forecasted at \$204,600.
- For comparison, the option to renovate the Fire Hall is \$779,350 less than the build new option and will have an annual tax levy impact of \$61,080 which is \$26,920 less than the annual impact of the build new option.
- Renovation projects are typically more complicated than build new options because it is normal for construction issues to be revealed once a building is opened up. Because of this, renovation projects can be susceptible to cost overruns.
- Renovation projects are constrained by the existing portion of the building that is to be retained. Although the final product may address all of the facility needs, they may not be accommodated in the ideal way because the designer will have to fit at least some of them within the existing foot print.
- It is anticipated that renovating the fire hall will have a shorter duration when compared to the new build option.

The financial implication associated with Option #2 – Renovate to Meet Recommended Requirements \$ 1,636,800

The projection for the facility is to begin construction March 1, 2020.

## 4.10 Apparatus and Equipment

I have reviewed the Town of St. Marys Fire Department fleet of vehicles, fire apparatus and major pieces of equipment including the types of vehicles, age, replacement cycles, utilization and suitability.

### 4.10.1 Apparatus and Equipment Overview

The Town of St. Marys Fire Department has numerous types of fire apparatus. To have a better understanding of the types of vehicles, fire apparatus and major pieces of equipment I have included definitions.

#### Definitions

**Fire Apparatus:** The National Fire Protection Association (NFPA) Vehicles of varying types and sizes that fulfill different roles or functions during fire and rescue operations.

**Class A Pumper:** An apparatus meeting that criterion for a pumper truck that can be used to fight fires in structures or other types of fires requiring larger volumes of water.

**Aerial:** The National Fire Protection Association (NFPA) Used to gain access to fires occurring at height using a large telescopic ladder, where conventional ladders carried on conventional appliances might not reach. The name is derived from the fact that the large ladder is mounted on a turntable on the back of a truck chassis, allowing it to pivot around a stable base. To increase its length, the ladder is telescopic. Modern telescopic ladders are either hydraulic or pneumatic.

**Tanker/Pumper:** An apparatus that supplies water to other trucks or drop tanks during fire operations. However, the pumps are usually large enough that the truck could be used to fight fires just as you would be able to with a Class A Pumper. These trucks could have access issues due to the weight of the truck where a Class A Pumper would work better.

**Rescue truck:** Different styles of trucks used in various rescue operations. These operations can include vehicle accident extrication, building collapse, confined space rescues and other specialized rescue operations.

### **Pumping Capacity**

The pumping capacity of the fire department is adequate to combat the anticipated fire volume that would be required for the structures and occupancies found within the Town of St. Marys and Perth South. Please note additional resources are available through the Perth County Mutual Aid Agreement.

### **Vehicle Inventory**

The Town of St. Marys Fire Department maintains a variety of vehicles required to respond to the types of incidents that the department is called upon to manage. Vehicle inventory including the Type of Vehicle, Year of Manufacture, Response Type. The Town of St. Marys Fire Department maintains a variety of vehicles required to respond to the types of incidents that the department is called upon to manage.

#### **4.10.2 Pumping Capacity**

The pumping capacity of the Fire Department is adequate to meet the needs to combat the fire volume the department can anticipate would be required for the structures and occupancies found within the Town and Perth South. Note additional resources are available through the Perth County Mutual Aid Agreement.

#### **4.10.3 Pumper**

##### **#1 Pumper**



- Make - Freightliner FL
- Year of manufacture - 1998
- Current mileage – 32,392 kms
- Engine Hours – 1,385.8
- Tank Capacity 832 l.Gal
- Pump capacity 1250 IGPM
- Response - First line pumper – Town or Rural

- Accumulates more pump hours than the aerial and tanker
- Life expectancy dependent on yearly pass of ULC pump test. This is scheduled to be tested on the 3rd of August 2018.
- The pumper is used to transport firefighters and equipment to an emergency scene and to provide pumping operations as necessary depending on the operational needs for mitigation of that emergency. In rural applications, pumping functions may include application of water onto the fire scene, drafting of water from a water source, or relay pumping from pumper to pumper over a distance to provide water to the apparatus operating at the scene. 5 man cab utilized to transport firefighters rather than using their own personal vehicles for rural calls is equipped for a number of jobs in addition to being an engine that carries water and has a pump. This vehicle is equipped with a 1250 GPM pump and 832 gallons of water. High rescue sided compartments allows for a number of rescue tools and equipment. Additional equipment carried on the pumper include, SCBA, water rescue equipment, air monitoring equipment, generator, Ram Fan, foam, an assortment of hose, and a number of hand tools. The Town of St. Marys is served well by its only pumper, but will need to be replaced.
- Expected replacement year – 2018 Capital budget states it will be replaced in 2021. Estimated replacement cost \$525,000

#### 4.10.4 Aerial

##### **#2 Aerial - Superior**



- Make – Freightliner FL
- Year of manufacture 1991
- Current mileage – 80,392 miles or 129,378.38 kms
- Tank Capacity 500 I.Gal
- Pump capacity 1250 IGPM
- Response – Second line vehicle to pumper – Town or Rural
- Pump not used as extensively as #1 pumper, less hours on pump the Fire Department is equipped with a 1991 aerial with a 50' ladder. Not all small departments are fortunate to have an aerial truck. When considering purchase or replacement of an aerial truck in a small department, there can be resistance in the community due to the high cost of these trucks and the varied opinion on the need. St. Marys is no different in this respect. There are some

questions about whether the Town of St. Marys Fire Department needs an aerial device (new or used) and the cost of replacement. There have also been questions of whether or not this truck should be replaced before Pumper #1.

The consensus of the firefighters interviewed is that the aerial provides a safe and effective means for reaching elevated areas for situations such as chimney and roof fires. It was noted the aerial is used for barn fires although in some cases it may be a tight fit for some rural lanes. It was also noted that the aerial provides additional pumping capacity if required.

Many fire departments choose to maintain an elevated device as part of their equipment fleet where it can provide operational benefits during emergency incidents in the community. Generally, the departments purchase a used apparatus that still has serviceable life that will meet the demands of the service.

Since purchasing the aerial November 10th, 2004 the Town of St. Marys Fire Department has used the apparatus as an elevated device to provide access to upper levels of structures during various incidents for ventilation and fire extinguishment purposes. During fire incidents, it is often necessary to ventilate a structure at the highest possible location to allow toxic gases and smoke to vacate in order to establish a safe environment for fire crews to enter the structure. The aerial unit has also been used for water supply as a fire pump and as a pumper in a relay chain of pumpers that provide water to a fire incident over a distance from the water source to the incident location. The aerial can also be used as a water tower which means the ladder is elevated and water is applied from an elevated position onto or into a fire incident providing an advantage to extinguishing fire areas that are difficult to reach from an exterior ground level position.

Weakened roof structures can present operational hazards during fire incidents and an aerial device provides a safe platform from which to perform any necessary firefighting tasks such as ventilation, entry and water application access.

- Life expectancy dependent on annual maintenance and on yearly pass of ULC pump test – 2017 Annual Pump test failed to draw a vacuum. This was fixed and passed (8 February 2018). The pump is scheduled to be tested on the 3rd of August 2018.
- Life expectancy also dependent on yearly pass of aerial inspection – 2018 Annual Ladder test passed (22 February 2018).
- Expected replacement year – Was supposed to be 2011 and needs to be replaced in 2019 - Estimated replacement cost \$875,000

#### 4.10.5 Tanker

##### **#3 Tanker**



- Make – Freightliner
- Year of manufacture 2012
- Current mileage – 9,894.4 kms
- Tank Capacity 1770 I.Gal
- Pump capacity 500 IGPM
- Response – Rural. Minimal use in town.
- Pump not used as extensively as #1 pumper, less hours on pump
- The tanker is used for rural water supply as well as combating wildland fires. The tanker's pump capacity is 500 gallon per minute (GPM). Although some tankers do not have a fire pump they are able to store a larger capacity of water. In a rare situation the tanker would be able to provide a first response pumping ability to a fire call in the event the primary response pump was unable to respond; For example, should there be a mechanical breakdown or the Pumper is out of service for maintenance.
- Life expectancy dependent on annual maintenance and on yearly pass of ULC pump test. This is scheduled to be tested on the 3rd of August 2018.
- Expected replacement year – 2032 - Estimated replacement cost \$350,000

#### 4.10.6 Rescue

##### **#4 Rescue/Equipment**



- Make – Freightliner
- Year of manufacture 2008
- Current mileage – 9,198.5 kms
- Response - First line vehicle and responds to all calls

- The Rescue Unit responds to all emergency response calls. The Rescue Unit serves multiple purposes including carrying major rescue and vehicle extrication equipment, secondary response to emergency medical calls, transportation of firefighters and as rehabilitation facilities during inclement weather conditions. One should note that due to the increasing amount of emergency responses and what is expected of the Fire Department to perform the Rescue Unit has reached its maximum storing capacity for equipment. As we continue to upgrade our rescue services to the Town and Perth South the Fire Department will require a larger vehicle to accommodate the equipment.
- Life expectancy dependent on annual maintenance.
- Expected replacement year – 2028 – Estimated replacement cost \$525,000

#### 4.10.6 Pickup Truck

##### *Pickup Truck Ford F 150*



- Make Ford F 150
- Year of manufacture 2015
- Current mileage – 31,721 kms
- Response – Attends all fire calls, town and rural. Used daily for department business. Is the primary command vehicle and is currently assigned to the chief of the department. Equipped with a command console and multiple radios, the vehicle also carries the PPE of the operator, and EMS equipment, and reference materials.
- Life expectancy dependent on annual maintenance and is expected to be traded in approximately 8 years.
- Expected replacement year – 2023 – Estimated replacement cost \$40,000

#### 4.11 Vehicle Replacement Cycle

During the 2018 budget deliberations, Council raised a number of questions regarding the replacement schedule of fire department vehicles and asked that Staff report back on a number of matters. Council passed the direction below to staff after a discussion of whether the aerial truck should be replaced before the Town's pumper truck.

**Resolution 2018-01-30-03** THAT staff be directed to review the Fire Department's Short Term Capital Plan and report back to Council by August 31 on the Capital Plan for fire equipment replacement and the preferred procurement approaches for the equipment.

The Fire Chief prepared and presented a report FD 09-2018 Capital Plan for Fire Equipment Replacement Council had requested information and recommendations for the replacement cycle of emergency response vehicles for the fire department.

Questions have been asked regarding the appropriate timing for replacement of fire department vehicles. When considering the need to replace fire apparatus, we must review many factors. The National Fire Protection standard 1901, Standard for Automotive Fire Apparatus is the document most frequently referred to by the fire service and municipalities across North America for information on replacement and purchase of emergency response apparatus. Replacement considerations and timing are addressed in Appendix D of the 2016 edition of this standard. Underwriters Laboratories of Canada (ULC) may also apply.

We provide a summary of Appendix D of NFPA 1901, 2016 Edition below, for use when considering replacement of a vehicle. We note that Appendix D of the standard is not considered a mandatory requirement of the document, but is provided for informational and recommendation purposes.

To maximize fire fighter capabilities and minimize the risk of injury, it is important that fire apparatus be equipped with the latest safety features and operating capabilities.

Industry standards for fire apparatus are typically revised every five years, and there have been substantial changes to upgrade functional capabilities and safety features over the last 15 years.

Included in those improvements are such things as:

- Roll over stability
- Seat belt design for fully dressed firefighters and seat belt use warning system
- Minimum acceleration and upper speed limitations
- Cab integrity
- Enhanced work and step lighting and safety design
- Reflective striping
- Ergonomic design for accessibility to equipment such as ladders and hose lines

The life cycle of a vehicle depends on many factors including:

- Vehicle mileage and engine hours
- Quality of the preventative maintenance program
- Quality of driver training
- Proper use of apparatus within design parameters
- Manufactured on a commercial or custom chassis
- Quality of manufacturer workmanship
- Quality of components used to build the vehicle
- Availability of replacement components

Factors to evaluate and consider for the replacement timing of a vehicle include:

- What is the true condition of the apparatus – has it been in a major accident or required major repairs?
- What advances have been made in design safety, technology and operational functionality since its manufacture?
- Does the vehicle still meet the needs of its service area or is it obsolete?
- Can the vehicle carry the equipment needed to do the expected job within its weight load capacity?
- What are the anticipated cost annually to keep the vehicle in service including downtime, maintenance cost, depreciation, reliability and safety of the users and the public?
- How available are replacement parts?
- How long can the department operate in the event of a major mechanical breakdown?
- What is the current trade in value of the vehicle and what is the expected depreciation rate?

NFPA 1901, Appendix D, 2016 Edition concludes,

*A fire apparatus is an emergency vehicle that must be relied on to transport firefighters safely to and from an incident and to operate reliably and properly to support the mission of the fire department. A piece of apparatus that breaks down at any time during an emergency operation not only compromises the success of the operation but might jeopardize the safety of the firefighters relying on that apparatus to support their role in the operations.*

### **Replacement Plan Considerations**

Various agencies have developed a weighted point system that mixes the factors listed above in a formal reporting and review process. The advantage to this is that it removes bias out of the replacement process and creates an objective review process while providing the facts that all the stakeholders (end users, management, and finance staff) understand to buy into the program. A variety of software systems and various point system programs are used by many fleet agencies across the country. Some are based on an overall replacement program using an average, while others customize the program to fit different classes or types of equipment. The point system is the most widespread methodology.

Sample Replacement Point System received from Fire Engine Replacement Guidelines (Source: Public Fleet Summits)

### **Factors + Points**

**Age** - One point for every year of chronological age, based on in-service date.

**Miles/Hours** - On-road units with a 7L or larger diesel engine receive one point for each 32,000 kms. All other on road units receive one point for each 16,000 kms. Off-road equipment with a diesel engine over 150 hp receives one point for each 1,000 hours, or 200 hours if its diesel engine offers 150 hp or less.

**Type of Service** - One, three, or five points are assigned based on the type of service the unit is exposed to. For instance, fire pumpers would be given a five because it is classified as severe duty service. In contrast, an administrative sedan would be given a one.

**Reliability** - Points are assigned as one, three, or five depending on the frequency that a vehicle is in the shop for repair. A five would be assigned to a vehicle in the shop three or more times per month on average, while a one would be assigned to a vehicle in the shop an average of once every three months or less.

**Maintenance & Repair Costs** - One to five points assigned based on maintenance costs (not including repair of accident damage). If maintenance and repair costs are 20% or less of the purchase price, 1 point is assigned. If costs are 100% or more of the purchase price, 5 points are assigned.

**Condition** - This category takes into consideration body condition, rust, interior condition, accident history, anticipated repairs, and so on. A scale of one to five points is used with five being poor condition.

## Point Ranges

Fewer than 18 Points: Condition I Excellent

18 to 22 points: Condition II Good

23 to 27 points: Condition III Qualifies for replacement

28 points and above: Condition IV Needs immediate consideration

An example would be: a 5-year-old fire pumper as a case study. The unit has 160,000 kms and more than 1,000 engine hours; Severe-duty as the vehicle responds to all urban and rural calls, poor condition; and includes an average of 3 or more times a month in the garage, Repair costs are 70% of its purchase price. The vehicle has rust throughout the body. Seats are torn and in need of repair.

The points would be assigned as follows:

Age = 5 points

Kilometers or engine hours = 10 points

Type of service is severe = 5 points

Reliability = 5 points

M&R costs = 3 points

Condition = 5 points

Total = 33, **28 points and above; Condition IV Needs immediate consideration**

Applying this fleet analysis tool to the Town of St. Marys Fire Department fleet shows:

### #1 Pumper

Make - Freightliner FL

Year of manufacture - 1998

Current mileage - 32,392 kms

Engine Hours - 1385.8

Response - First line pumper - Town or Rural.

Age = 20 points

Kilometers or engine hours = 2 points

Type of service is severe = 5 points

Reliability = 1 points

M&R costs = 1 points

Condition = 1 points

Total = 30, **28 points and above = Condition IV Needs immediate consideration**

### #2 Aerial - Superior

Make - Freightliner FL

Year of manufacture 1991

Current mileage - 80,392 miles or 129,378.38 kms

Response - Second line vehicle to pumper - Town or Rural

Age = 27 points

Kilometers or engine hours = 8 points

Type of service is severe = 5 points

Reliability = 1 points

M&R costs = 1 points

Condition = 3 points

Total = 45, **28 points and above = Condition IV Needs immediate consideration**

### #3 Tanker

Make - Freightliner  
Year of manufacture 2012  
Current mileage - 9,894.4 kms  
Response - Rural. Minimal use in town.  
Age = 6 points  
Kilometers or engine hours = 1 points  
Type of service is severe = 5 points  
Reliability = 1 points  
M&R costs = 1 points  
Condition = 1 points  
Total = 15, **Fewer than 18 Points = Condition I Excellent**

### #4 Rescue/Equipment

Make - Freightliner  
Year of Manufacture 2008  
Current mileage - 9,198.5 kms  
Response - First line vehicle and responds to all calls  
Age = 10 points  
Kilometers or engine hours = 1 points  
Type of service is severe = 5 points  
Reliability = 1 points  
M&R costs = 1 points  
Condition = 1 points  
Total = 19, **18 to 22 points = Condition II Good**

### Pickup Truck

Make Ford F 150  
Year of manufacture 2015  
Current mileage - 31,721 kms  
Response - Attends all fire calls, town and rural. Used daily for department business  
Age = 3 points  
Kilometers or engine hours = 2 points  
Type of service is severe = 3 points  
Reliability = 1 points  
M&R costs = 1 points  
Condition = 1 points  
Total = 11, **Fewer than 18 Points = Condition I Excellent**

The most significant question resulting from the 2018 budget deliberation was whether the Pumper #1 should be replaced before the Aerial Ladder truck. Using the industry recommended fleet analysis system above, the need for replacement for both compares as follows:

- Pumper #1: 30 points (> 28 = Condition IV Needs immediate consideration)
- Aerial Ladder Truck: 45 points (> 28 = Condition IV Needs immediate consideration)

Based on the analysis completed, the Town's current replacement schedule of replacing the aerial truck before the Pumper #1 has been confirmed. When the aerial is replaced the operating plan for deployment of trucks will change. The aerial truck that is proposed to be purchased is one which has pumping capabilities. The new aerial will become the new first line pumper, and Pumper #1 will become the second line pumper until it is replaced in 2021.

The overall order of large apparatus to be replaced is as follows:

1. The Fire Apparatus 10 Year Capital Forecast – Truck Replacement Projection anticipates replacement of the aerial ladder truck in 2019 at which point the vehicle will be 28 years old. \$875,000 has been budgeted in the capital plan for this replacement. The fire department plans to purchase a new or used aerial available on the market at that time. The Chief will be seeking direction from Council in FD 10-2018 following this report on whether a new or used vehicle should be purchased.
2. The next vehicle to be replaced would be the pumper scheduled for replacement in 2021 at which point the vehicle will be 23 years old. \$525,000 has been budgeted in the capital plan for this replacement.
3. The next vehicle to be replaced would be the Fire Chief's pickup truck scheduled for replacement in 2023 at which point the vehicle will be 8 years old. \$40,000 has been budgeted in the capital plan for this replacement.
4. The next vehicle to be replaced would be the Rescue Truck scheduled for replacement in 2028 at which point the vehicle will be 20 years old. There are \$525,000 in allocated funds in the capital budget forecast for this replacement.
5. The last vehicle to be replaced would be the Tanker Truck scheduled for replacement in 2032 at which point the vehicle will be 20 years old. \$350,000 has been budgeted in the capital plan for this replacement.

#### 4.12 Maintenance Program

I have reviewed the inspection and maintenance program of Fire Department vehicles, fire apparatus, and equipment.

##### 4.12.1 Maintenance of apparatus and equipment Overview

General maintenance items, such as MTO safety checks, general vehicle repairs and servicing is done by a local garage. Specialized testing, such as annual fire pump testing and aerial inspections are completed by a company specializing in fire equipment and apparatus. Self-contained breathing apparatus tests are conducted annually by a company specializing in the maintenance, testing and repair of firefighter breathing apparatus. Testing, repairs and maintenance of apparatus and equipment is documented.

#### 4.13 Communications

We have reviewed the Town of St. Marys Fire Department communications systems, including dispatch, paging, telephone, and radio systems.

#### 4.13.1 Communications Overview

1. Alarms for the Town of St. Marys Fire Department are received and dispatched through a paging system activated by the Stratford Fire Department under contract for those services. Stratford Fire Department provides full communications support during emergency operations as required.
2. The department has recently introduced a program called “Active 911” which provides paging through smart phone technology and provides officers with up-to-date information on the number of firefighters responding to a call.
3. The Town of St. Marys Fire Department utilizes the radio system operated by the County of Perth for radio communications and paging of alarms. Local radio and paging equipment is operated and maintained by the Town.

#### 4.13.2 Assessment of Communications

My consultations determined general satisfaction with the radio and paging system and with the support received from the Stratford Fire Department Communications Centre during calls and for the provision of call statistics when requested.

#### 4.14 Emergency Management Program

I have reviewed the Emergency Management Program for the Town of St. Marys as managed by the Fire Chief/CEMC.

##### 4.14.1 The Town of St. Marys Emergency Management Overview.

The Emergency Management Program for the Town is authorized in By-law 26-2019. The Fire Chief is designated as the Community Emergency Management Coordinator (CEMC) for the Town. The Director of Building & Development and Director of Public Works are designated as the alternate CEMC’s for the Town.

Consultations on this project objective clarified that the intent is to review the appropriateness of having the Fire Chief function as the Town CEMC.

##### 4.14.2 Role of Fire Chief as Community Emergency Management Coordinator (CEMC)

I recommend the Town consider a model for emergency management that removes the role and responsibilities for emergency management from the Fire Department.

As attention was focused on emergency planning and management over the last decade and requirements in the Emergency Planning Act and Civil Protection became regulated, municipalities were required to develop plans and designate officials to take on specific roles in the management of major emergencies including the requirement to designate a person in the role of CEMC. In most municipalities this function fell to the fire department and frequently the fire chief or a senior officer in the fire department was designated as the municipality’s CEMC. As community emergency planning has evolved, and fire chiefs who also have been given the responsibilities of the CEMC role have gained experience in these dual roles, it has become apparent this does not, in practicality, provide optimum operational efficiency and functionality during critical emergency incidents. This is of particular concern in departments where the fire chief is expected to act as a senior operational officer at emergency scenes as well as fill the CEMC role on the Community Control Group during major emergencies.

I understand that the Office of the Fire Marshal and Emergency Management (OFMEM) recommends that communities reconsider the appointment of senior members of the fire department to the role

of CEMC and consider alternatives to fulfill the role of CEMC. The OFMEM has not issued a specific policy regarding this recommendation, but our understanding is that this concern has been presented at various seminars and conferences across the province.

**I recommend that the Town consider alternative opportunities to fulfill the CEMC role such as a part-time position or appointing a person that would not be directly involved in a critical emergency incident.**

## Appendix A: Town of St. Marys Fire Master Plan Consultations Summary

Consultations were conducted with various stakeholders as follows:

- June 6, 2018 General meeting for all firefighters at the St. Marys Fire Department (Attendance 23 paid-on-call firefighters) (Note: Deputy attended for the full meeting)
- June 18, 2018 General meeting with the Fire Prevention Officer at the St. Marys Fire Department
- September 5, 2018 General meeting for all Fire Officers at St. Marys Fire Department (Attendance 3) (Note: Deputy Fire Chief attended for the full meeting)
- October 3, 2018 General meeting for all firefighters at the St. Marys Fire Department (Attendance 21 paid-on-call firefighters) (Note: Deputy attended for the full meeting)
- January 2, 2019 General meeting for all Fire Officers at St. Marys Fire Department (Attendance 3) (Note: Deputy Fire Chief attended for the full meeting)
- February 20, 2019 General meeting with the Fire Prevention Officer at the St. Marys Fire Department

The following section provides an overview of the consultations undertaken for the development of the Fire Master Plan for the Town of St. Marys Fire Department. Comments, concerns and questions are summarized under each of the project subjects and duplicate comments, concerns or questions have been condensed.

I note the comments, concerns and questions have been generalized to ensure confidentiality where appropriate and reflect the understanding of the consultant(s) who conducted the interviews.

**1. Governance** – the applicable provincial Legislation and regulations, and municipal By-Laws relative to the Fire Department.

### Firefighters

*What are the council's responsibilities for determining the level of service?*

*Firefighter safety is important*

**2. Service Delivery** – the level and range of services and programs delivered currently, and future requirements taking into account predicted growth and service delivery expectations.

### Firefighters

*Fire response to medical calls seems to be increasing. There is no signed agreement with Perth County Paramedics that St. Marys Fire Department will respond to medical calls if paramedics cannot reach the patient in under 10 minutes. Firefighters currently have St. John Ambulance Standard First aid and CPR. Will firefighters require a higher level of first aid such as Emergency Medical Responder level?*

**3. Fire Prevention** – the Fire Prevention Program including fire inspections, investigations, and code enforcement.

### Firefighters

*It is a time issue – how much time can paid on call firefighters contribute to public education and fire prevention in addition to training a, equipment maintenance, etc.*

*Most of our structure fire calls are for industrial buildings and residential.*

*Perhaps more training on industrial fires and explosive gases and chemicals used locally*

*Pre-Fire Plans would help a lot to identify hazardous material storage, fire department connections, sprinkler systems, hydrant locations, etc.*

**4. Public Fire Safety Education** – the Public Education program, including demographics, website.

### Firefighters

*It is a time issue – how much time can the Fire Chief and Fire Prevention Officer contribute to public education and fire prevention in addition to their normal duties and responsibilities.*

*The Fire Chief and Fire prevention Officer do public education upon request. Concerns were expressed that messaging regarding the importance and requirements for working smoke alarms are not always effective in reaching residents in the rural areas of the community.*

*Get into the schools more often and influence the children and parents*

**5. Emergency Response** – emergency response call volume and trends, including types of calls, numbers of calls, apparatus deployment, response staffing, firefighter deployment and safety.

#### **Firefighters**

*Although most employers are supportive of the Fire Department turnout is affected by the fact that many of the paid-on-call firefighters are trades people and they can't always leave their regular jobs. The average numbers of firefighters that attend emergency response calls is approximately 17 of 25. Lack of Officers is of concern hence there should be the implementation of Lieutenant Positions. Fire Chief needs to constantly monitor response turnout*

*Depth of response for multiple calls may be a problem i.e. Officer to firefighter ratio.*

*We have better training and equipment and safer procedures than 3 years ago*

*Medical calls have increased dramatically.*

*Community expects someone in reasonable time even if just basic life support*

*Since taking most of the fire apparatus to emergency responses allows for more firefighters to arrive on the scene in a fire truck rather in their own personal motor vehicle.*

*Chief often responds to CO, Automatic and Unauthorized Open Air Burning calls during week nights and weekends to reduce the amount of money spent to dispatch the full Fire Department.*

*Rehabilitation during hot/cold conditions needs to be addressed especially during long periods of time.*

*The Fire Chief normally assumes command during fire ground emergencies. In his absence the Deputy Fire Chief will fulfill those duties. To develop junior officers (under the Fire Chief's direction) he could allow junior officers to assume command and to gain experience*

**6. Firefighter Training** –the Firefighter Training Program, including recruit training, firefighter training, and officer training.

#### **Firefighters**

*More organized now than in the past*

*Joint training with the other stations would be very beneficial when responding to actual emergencies – common training/procedures and know other firefighters working at the scene*

*There are sign off procedures for recruits to ensure they are trained adequately*

*The intensive training requirements may be turning people off from joining the department*

*Most staff at NFPA 472 Hazardous Materials awareness level. Perhaps an Operations Level would be beneficial.*

*99% of firefighters are certified to Firefighter II – Combination of “Grandfathering” and College Certificates.*

*Ongoing training – good now with a 6 month schedule of theory and practical training.*

*Communication on upcoming training is helping to encourage attendance*

*Fire Chief is trying to bring in instructors into area to do training rather than sending a few of our people out to colleges.*

*Suggestion to have a Training Officer is encouraged to deliver and monitor training*

*Hybrid vehicles – need training and updated manuals*

*There should be a formalized review of training to determine if and where gaps may exist*

*Pump Operations – everyone should be trained and tested and also vehicle familiarization*

*Use Waterloo Regional Emergency Services Training Centre more for hands on training*

#### **Firefighter comments specific to officer training**

*Would like opportunity to do more – i.e., Incident Command, Accountability Issue*

*The Fire Master Plan should have a strategy for Officer Development – Health and Safety requirement to have a competent supervisor on scene*

*Need more training in size up, incident command*

*More scenario based training that integrates officer decision making with firefighter tasks and tactics*

*Problem is taking the time off work or using weekends to get the training*

*Training should include mock calls where officers can be critiqued and mentored*

*Training in Incident Command*

*Mentoring is the best way to develop officers and future officers*

*Training of officers in FirePro records management and incident reporting*

**7. Administration** – administration of the Fire Department, including organization, policies and procedures, administrative support, record keeping, information management, purchasing, inventory control, public and media relations, and customer service.

#### **Firefighters**

*Fire Officers require a dedicated computer with FirePro system. This would allow fire officers to enter information into the Fire Pro system instead of just the Fire Chief.*

*Fire Master Plan should address need for reliable technology – need hardware improvements*

*Many Standard Operating Guidelines (SOGs) need to be reviewed – need a revision process that includes firefighter and officer input*

*Currently no formal training/review of SOGs*

*Use a high risk/low frequency assessment to focus efforts on SOG revisions*

*SOGs need to be more specific and compact*

*Create a committee for purchasing Personal Protective Equipment (PPE) – get input from users*

**8. Finance** – the Fire Department budgeting, reserves, development charges, revenues and potential revenues.

#### **Firefighters**

*Would like to know about the budget to understand priorities and offer input.*

**9. Human Resources** – the Fire Department staffing, organizational structure, ratio of officers to firefighters, firefighter recruitment and retention, job descriptions, remuneration of full-time and paid-on-call staff, promotional policy, succession planning, and health and safety.

#### **Firefighters**

*The organizational structure for the department should be revisited. Adding 3 Lieutenant positions would help with the Fire Officer to Firefighter ratio*

*Retention of paid-on-call firefighters has not been a problem. However when recruiting future firefighters people may not have previous firefighting experience or certificates. New recruits will have to attend a fire college. .*

**10. Facilities** – the location, condition, and configuration of existing fire hall

#### **Firefighters**

*Need to look at a new Fire Hall to replace the existing structure. There are numerous health and safety concerns such as no ventilation in the vehicle bays, no CO detection system, no shower area, no bunker gear storage room, no washroom facilities for females, no backup generator for power during power outage (Bay doors, air compressors on the vehicles or for SCBA fill station).*

*Consensus of those attending the current location of the Fire Hall is ideal.*

**11. Apparatus and Equipment** – the Fire Department fleet of vehicles, fire apparatus and major pieces of equipment including the types of vehicles, age, replacement cycles, utilization and suitability.

#### **Firefighters**

*Need to have better public communications when purchasing new apparatus for the Town*

*More public relations about equipment and its benefits*

*We have been purchasing newer and better equipment over the last three years. – we need to replace equipment not only due to wear and tear but also to keep up with technology to make the job safer and more efficient*

*The need for a new aerial ladder truck is long overdue and will be a good investment.*

**12. Maintenance Program** – the inspection and maintenance of Fire Department vehicles, fire apparatus, and equipment.

*This has been addressed and takes place once a month during a “Maintenance Night”.*

**13. Communications** – the Fire Department communications systems, including dispatch, paging, telephone, and radio systems.

#### Firefighters

*While interacting through Mutual Aid with Perth East radio communications can be a problem*

*There are plans for more/better coverage with Region’s new radio trunking system*

*What is the fire service input into the new regional radio system?*

*Need to look at multiple repeaters*

*Have introduced “Active 911” for call outs – uses smart phone technology – This has been a great tool in addition to our pagers.*

**14. Emergency Management Program** – the Emergency Management Program as managed by the Fire Chief/CEMC.

#### 15. Town of St. Marys - Fire Hall Existing Conditions Study & Functional Assessment

**Introduction** This report summarizes the findings of the Fire Hall site visit in the Town of St. Marys, on October 15<sup>th</sup> 2018. The site visit was undertaken to document, at a high level, existing conditions and functional assessments of the building and site. Information was obtained during building walkthroughs and discussions with firefighters. This report is based solely on information observed during the site visits. No structural, environmental, system or assembly tests or assessments were performed.

In the report, elements have been assessed as per one of three qualitative ratings: Good, Fair, and Poor. Good indicates that elements show no visible signs of wear or deterioration. Fair indicates elements are in functioning condition, but show signs of wear and deterioration, and should be maintained. Poor indicates elements have deteriorated to a point that replacement should be considered before the building is compromised.

**Overview of Findings** The Fire Hall was assessed in varying conditions.

The Town of St. Marys Fire Hall, built in 1965, originally the building was used as a metal fabricating shop. The welding shop was purchased by the Town of St. Marys in 1969 to become the Fire Hall. In 1997 two vehicle bays were added on to accommodate two vehicles.

Structurally the Fire Hall is in good condition. Numerous required upgrades and repairs have been identified in the report. The Fire Hall does not meet the current functional needs of the department, and the many functional upgrades are required.

Some of the upgrades that are required are as follows:

- Larger vehicle bays to accommodate larger vehicles and future expansion to the vehicle fleet
- Vehicle bays – drive through bays with vehicles exiting the building directly on to James Street South
- Generator – To maintain building power and radio communications
- Communications Tower
- Vehicle bay exhaust system
- Vehicle bay lighting upgrade
- CO monitoring system
- Larger meeting/training room
- Separate bunker gear room
- Storage room on the ground floor for extra equipment
- Kitchen
- Compressor Room
- Separate locker room
- Accessible washroom facilities

- Female showers/washrooms
- Shower area – for decontamination from high risk calls
- Washer & dryer for soiled clothing and bunker gear
- HVAC for entire building
- Expansion of office space to accommodate Dispatch, Fire Chief, Fire Prevention Officer & Officers
- Parking area for responding firefighters

There is ample space within the site, for future growth and expansion.

## Appendix B: Establishing and Regulating By-law Sample Schedule

The following services are provided by the Fire Department:

1. Vehicle Extrication: The Fire Department shall use manual and heavy hydraulic tools to perform rescues for vehicle, industrial and farm machinery extrication.
2. Confined Space Rescue: The Fire Department shall maintain the capability of responding to confined space incidents and performing confined space rescue.
3. Medical Aid Responses: The Fire Department shall provide Standard first aid and automatic external defibrillation.
4. High/Low Angle Rope Rescue: The Fire Department shall maintain the capability of responding to high/low angle rope rescue incidents limited to the use of descending rescue techniques for high angle rescue and rescues on flat land or mild, sloping surfaces.
5. Trench and Structural Collapse Incidents: The Fire Department shall maintain the capability to respond to Trench and Structural Collapse incidents at a level limited to securing the area surrounding the trench or structural collapse.
6. Hazardous Materials Leaks and Spills: The Fire Department shall maintain the capability of responding to Hazardous Materials Leaks and Spills incidents at the "awareness and operations level" in accordance with NFPA 472. The Fire Department will request additional assistance through the Perth County Fire Coordinator in accordance with Provincial Protocols.
7. Ice and Water Rescue: The Fire Department shall maintain the capability to provide swift water, shore based water and ice water rescue in accordance with NFPA 1006.
8. Fire Prevention: Fire Prevention is mandated by the Act. The Fire Department, as a minimum, responds to complaints and requests for inspections. Generally, the Fire Department administers a proactive fire inspection program and other activities as regulated by the Act, as amended.
9. Public Education: The Fire Department shall meet the requirements of the Fire Protection and Prevention Act, as amended.
10. Fire Suppression: The Fire Department shall be capable of responding to and extinguishing fires at a level that meets the community needs and circumstances as determined by Council. The Fire Department shall perform these services at a level up to and including entry of buildings for the purposes of search and rescue and interior/exterior firefighting operations.
11. Fire Investigations: The Fire Department shall perform cause and origin fire investigations and work cooperatively with the local police services regarding any violation of the law. The Office of the Fire Marshal of Ontario shall be contacted to investigate fires which fall under its mandate as defined in the Act.
12. Training: The Fire Department shall provide training to members of the department on the use of equipment and procedures to perform the duties for which they may be called. The Training Division shall conduct research and ensure that the training required for the Members of the department is delivered.

- 13. Communications: The Fire Department shall operate an Emergency Fire Communications Centre which receives and dispatches emergency calls and disseminates critical response information to and from emergency scenes.
- 14. Public Assistance: The Fire Department shall provide public assistance to the community in accordance with the resources of the department and in accordance with the training of the Members, as authorized by the Fire Chief or designate.

## Appendix C: Priorities

Based on the review conducted by the Fire Chief a total of 42 recommendations have been made. The following list has been organized in the recommended timeline implementation. For more detailed and chronological overview of the recommendations.

Recommended Priority (High, Medium, Low, No Change)	Recommended Solution	Recommended Time Line
	<b>Governance</b>	
High	The establishment and regulating by-law be reviewed and revised to identify the types and levels of services to be delivered by the Fire Department.	2019
High	The Fire Department organizational chart be revised to reflect the organizational model subject to approval by Council.	2019
	<b>Fire Prevention and Public Life Safety Education</b>	
High	The Fire Department work with the Fire Prevention Officer to identify all high-hazard manufacturing operations and develop a coordinated Pre-Fire Plan inspection system utilizing paid-on-call firefighters to achieve these goals.	2019
Low	The Fire Department enhance its fire-cause determination capabilities to assist with focused fire prevention and education initiatives.	Long-term 7-10 Years Current Fire Chief & Fire Prevention Officer has these qualifications
Low	The Fire Department create a part-time position of Public Educator	Long-term 7-10 years

Medium	The Fire Department conduct a study to determine the status of working smoke alarms and carbon monoxide alarms in the community.	Short-term 1-3 Years
No Change	The Fire Department continue the existing public education programs in the schools	Continue with program
<b>Emergency Responses</b>		
No Change	The Fire Department continue to monitor and provide annual reports to Council on emergency response incidents by type of emergency, travel times and number of responders.	Continue with annual reports
<b>Training</b>		
High	The Fire Department develop a five-year training program/schedule.	2019
High	The five-year training schedule take into consideration the types and levels of services delivered, as approved by Council, and address the training required to deliver those services at the operational level.	2019
High	The five-year training schedule include mandated training requirements (such as first aid and CPR renewals) and department priorities based on frequency and hazard level of calls.	2019
No Change	The training program include a regular review of the Ministry of Labour Fire Fighter Health and Safety Guidelines.	Continue with program
High	The five-year training program provide opportunities for training exercises, including task and incident command level simulations.	2019
No Change	The Fire Department implement an officer training program that includes incident command, firefighter health and safety, and appropriate training in departmental administrative procedures.	Continue with program
No Change	The Fire Department continue with a training program for future officers	Continue with program as officers retire/resign and new officer are required

Medium	The Fire Department create a Training Officer position for the fire department and provide training for that position.	Short-term 1-3 Years
Medium	Officers receive the necessary training to utilize the department's records management system (FirePro) to enter and access fire and training records.]	Short-term 1-3 Years
<b>Organization</b>		
No Change	The management team of the Fire Chief and the Deputy Fire Chief meet with the Captains to review job descriptions and ensure a clear understanding of roles and responsibilities by all parties. Efforts should be made to ensure that management team meetings are held regularly (once a month is recommended) to ensure an ongoing and open flow of communication through the department. Efforts should also be made to ensure the management team meetings are inclusive and effective in addressing concerns and issues that may arise.	Continue on a monthly, quarterly and annual basis
<b>Administration</b>		
Medium	The Town conducts a time/workload study of the administrative functions of the Fire Department to ensure the Fire Department administration is adequately and efficiently resourced.	Short-term 1-3 Years
Medium	The Town undertakes the necessary hardware upgrades to make the most efficient and effective use of the FirePro system at the departmental and station level.	Short-term 1-3 Years
Medium	The Fire Department provide the training required to the officers to utilize the FirePro system for recording emergency incidents.	Short-term 1-3 Years
High	The Fire Department undertake a thorough review of all policies and procedures and standard operating guidelines upon approval by Council of the types and levels of services to be provided to the community by the Fire Department.	2019

High	The Town undertakes a number of public information efforts to communicate the content of the Fire Master Plan to the community following adoption of the Fire Master Plan for the Town of St. Marys Fire Department.	2019
No Change	The Fire Department present a report to Council annually indicating its compliance to Council approved service delivery standards.	Continue to update Council as required
<b>Record Keeping/Information Management</b>		
Medium	The Town of St. Marys undertake the necessary hardware upgrades to make the most efficient and effective use of the FirePro system at the department level. I further recommend the Town of St. Marys Fire Department provides the training required to the officers to utilize the FirePro system for the recording of emergency incidents. I have previously made a similar recommendation regarding the use of the FirePro system for training records in Section 4.4.2.	Short-term 1-3 Years
<b>Facilities</b>		
No Change	The current fire hall location is maintained and a refurbished fire hall be constructed in St. Marys on the existing property.	Forecasted completion of the refurbished of the Fire Hall is November 2020
<b>Apparatus and Equipment</b>		
No Change	Continue with the established 10-year capital budget for the replacement of vehicles and equipment.	Continue to review and update as required

No Change	Upon reaching the due date for replacement, fire apparatus are evaluated to consider the condition, currency of operational and safety features, reliability, and operational functionality of the vehicle.	Apparatus should be ordered 12 months prior to the delivery date
<b>Public and Media Relations</b>		
High	Following adoption of the Fire Master Plan for the Town of St. Marys Fire Department, the Town of St. Marys undertake a number of public information efforts to communicate the content of the Fire Master Plan to the community, including among other things:	2019
High	An open house for presentation of the Fire Master Plan to the public	2019
High	Access to the Fire Master Plan on the Town website	2019
High	Distribution of the content of the Fire Master Plan to local media	2019
Medium	Development of a social media program for public information and public education initiatives	Although there is one in place the Fire Chief and Fire Prevention Officer need to work with the Corporate Communications Manager to develop a better program
High	Presentation of the Fire Master Plan to the members of the Fire Department	2019
<b>Customer Service</b>		
No Change	A monitoring process be implemented and that the Fire Chief report to Council annually regarding the department's compliance to those standards. Areas where the department is not able to achieve compliance to those standards should be noted with recommendations to close any gaps in service delivery.	Continue to update Council as required

Medium	Guidance for development of service delivery standards and reporting requirements can be found in The National Fire Protection Association standard, “Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations by Volunteer Fire Departments, 2014 Edition.”	Continue with program
No Change	The Town of St. Marys Fire Department present a report to Council annually, indicating its compliance to Council approved service delivery standards.	Continue to update Council as required
<b>Fire Department Staffing</b>		
High	Lieutenant positions be reviewed and presented to council for approval.	2019
<b>Communications</b>		
No Change	The Town continues the current rate of contribution to the radio replacement project in the 10-year capital budget and monitors the project for more specific cost estimates as the project proceeds.	Long-term 7-10 years
No Change	The Town should estimate the cost to replace the current inventory of radios in 2026 based on the current replacement value (\$20,000).	Long-term 7-10 years
<b>Emergency Management Program</b>		
Medium	The Town considers a model for emergency management, removing the role and responsibilities for emergency management from the Fire Department.	1-3 years
<b>Role of Fire Chief as Community Emergency Management Coordinator</b>		
Medium	The Town consider alternative opportunities to fulfill the CEMC role such as a part-time position or appointing a person that would not be directly involved in a critical emergency incident.	1-3 years