Town of East Gwillimbury Emergency and Community Safety Services

Fire Master Plan

January 2023 Update

Introduction

Background

Within the Region of York, the six most northerly local area municipalities (known as "The N6") have a long history of working collectively and cooperatively together. Through this arrangement, many successes have been achieved in the way of shared services and cost efficiencies. The N6 continue to explore alternative and ground-breaking service delivery options to the mutual benefit of their municipalities.

Over the past several years, the fire chiefs, representing the five fire departments of the N6, have combined efforts to explore opportunities and determine innovative and cost-effective methods for delivering Fire Protection Services.

Last year, a high-level assessment was performed to examine potential areas of improvement between the N6 Fire Departments. Through this assessment, a number of strategic and operational areas of improvement have been identified. In some cases, opportunities exist that would pertain to all fire departments, whereas in other cases, opportunities would only apply to two or more of the fire departments. From the results of the assessment, it was determined that updating the Fire Masterplans, as a coordinated effort, would be the first priority.

During the period of assessment, Central York Fire Services had already entered into an agreement for the development of a Fire Masterplan. As such, and in light of comparable business practices, the remaining fire departments agreed to proceed in a collective fashion representing:

- The Town of East Gwillimbury
- The Township of King
- The Town of Georgina
- The Town of Whitchurch-Stouffville

It was agreed that these four municipal fire departments would combine efforts for the purposes of:

a) Preparing individual Fire Masterplans for each of the four municipalities

b) Analyzing the results of each of the Fire Masterplans to identify opportunities for new operational strategies, innovative and unique approaches to service delivery, shared services, common Key Performance Indicators (KPIs), alternative work methodologies, etc.

In turn, a "Collaboration Initiative" Project was established, overseen by a Project Steering Committee comprised of the four fire chiefs and the Town of Georgina CAO.

Objectives of this Collaboration Initiative Project

The Objectives of the "Collaboration Initiative" Project are summarized below:

- Assess the impacts of existing conditions and future growth patterns and project the anticipated community needs in all areas of fire and emergency services in relation to the Ontario Fire Marshals three lines of defence: Education, Enforcement and Response.
- Thoroughly review existing research, information, and strategies as well as conduct a detailed trend analysis including issues and best practices regarding fire and emergency services.
- Development of a Comprehensive Community Risk Assessment as the basis for determining the appropriate level of emergency response deployment to meet the municipalities legislative responsibilities, as well as appropriate level of fire prevention and response to meet the needs of the building stock and risk in the municipality.
- An analysis of current Office of the Fire Marshal, Ontario Public Fire Safety Guidelines and National Fire Protection Association Standards to determine options for the optimal level of emergency response deployment to meet the needs and circumstances of the community.
- Work with representatives of Fire Underwriters Survey for the purposes of determining opportunities for insurance premium savings within municipalities.
- A comprehensive consultation program to seek input from fire services staff and other stakeholders.

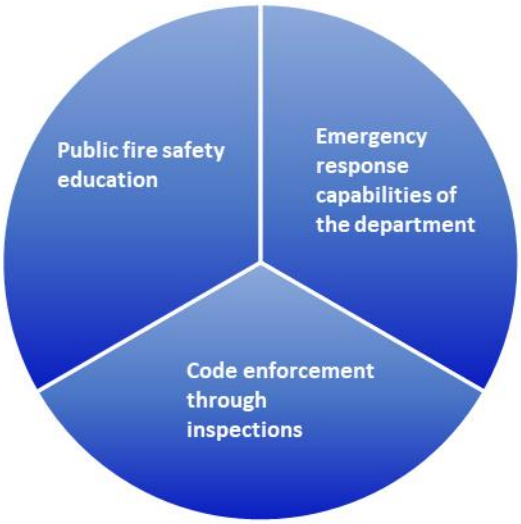
Additional Unique Aspects of the "Collaboration Initiative" Project

The benefits of this Collaboration Initiative project are many, including expanded opportunities for fire services expertise given that four fire chiefs are supporting each other's efforts and providing input on practices that are common to all departments. This project also incorporates two unique perspectives:

a) The OFM "Three Lines of Defence"

Contrary to a single focus on fire suppression activities, a foundational element of this study is that it is based on the Office of the Fire Marshal and Emergency Management (OFMEM), three lines of defence in relation to servicing the community, which include:

1. **Education** – Fire safety education is the key to mitigating the fire and life hazards before they start. With the growth of the community, how will EGES continue to meet the fire safety educational needs of the community?



2. **Inspections and Enforcement** – If the public education program does not prove effective, the next step is for the fire department to enforce fire safety requirements through inspections and possible charges. Having a full-time Fire Prevention Division goes a long way to addressing these education and enforcement requirements.

3. **Emergency Response** – If the first two lines of defence fail for whatever reason, the community, through its fire department, should be prepared to respond in an efficient and effective manner to put the fire out and/or mitigate the emergency itself. By evaluating the effectiveness of the fire stations, its staff and equipment, this report will be able to make recommendations for related efficiencies.

b) Fire Underwriters Survey

Fire Underwriters Survey (FUS) is a national organization providing data on public fire protection for fire insurance statistical work and underwriting purposes of subscribing insurance companies. Subscribers of Fire Underwriters Survey represent approximately 85 percent of the private sector property and casualty insurers in Canada.

FUS Certified Fire Protection Specialists conduct detailed field surveys of the fire risks and fire defences maintained in built-up communities and the results of these surveys are used to establish a Public Fire Protection Classification (PFPC) for each community. The information provided through the Fire Insurance Grading Index is a key factor used in the development of Commercial Lines property insurance rates. The PFPC is also used by underwriters to determine the capacity of risk they are willing to assume in a given community or section of a community.

FUS also uses PFPC information to develop the Dwelling Protection Grade (DPG), which is utilized by Personal Lines insurers in determining property insurance rates for detached dwellings. The Dwelling Protection Grade is a measure of the ability of the protective facilities of a community to prevent and control the structure fires in detached dwellings by evaluating the adequacy, reliability, strength and efficiency of the protective facilities and comparing the level of protection against the level of associated fire risk.

The work of FUS was undertaken in parallel with the analysis required for the preparation of the East Gwillimbury Fire Masterplan, the results of which have been incorporated into the key recommendations outlined within this document.

Collaboration Initiatives to Follow

Much reference has been made to the collaboration initiatives aspect of this project. This report brings forward the intended deliverable of the project, of which, the East Gwillimbury Fire Masterplan is the third phase. For the final chapter to be written, i.e. the actual outline of potential new operational strategies/innovative practices, all four individual Fire Masterplans must be completed, and an overarching assessment undertaken. It is anticipated that this work will be finalized by Summer of 2017.

ESCI Update: (2022)
Report Format
In the creation of this updated report, the fire chiefs of Georgina and East Gwillimbury discussed how best to present the updated information. A few issues developed regarding how to present the report:

Should the original content of the report just be updated?

- If it is updated, should the original data be retained?
- Should we keep all the original language and add relevant updated sections where appropriate?
- How are updates references?

In the end, the fire chiefs elected to retain the previous report format and data and provide a separate blue update box where appropriate throughout the report. However, additional material has been added to the report changing page number references. Those page number references and the table of contents were updated to the current report page numbers.

In addition, the EGES acronym in the ESCI sections of the report only have been replaced with East Gwillimbury's new acronym, ECSS (Emergency and Community Safety Services).

Collaboration Initiative Update
The "Collaboration and Innovation Report" was an outcome of the Collaboration Project. It was a formal project to support the originally established objectives. The original objectives may no longer be relevant, however, the intent and spirit of the project is still active. The Province of Ontario and Office of the Fire Marshal still advocate for greater collaboration amongst local communities and their fire departments. The subsequent updates in this report identify progress on the objectives that were initially established by the project:

Objective #1: " Assess the impacts of existing conditions and future growth patterns and project the anticipated community needs in all areas of fire and emergency

services in relation to the Office of the Fire Marshal's Three Lines of Defence:

- Public Education
- Inspection and Code Enforcement
- Emergency Response

Objective #2: "Thoroughly review existing research, information, and strategies as well as conduct a detailed trend analysis including issues and best practices regarding fire and emergency services."

Objective #3: "Development of a Comprehensive Community Risk Assessment as the basis for determining the appropriate level of emergency response deployment to meet the municipalities legislative responsibilities, as well as the appropriate level of fire prevention and response to meet the needs of the building stock and risk in the municipality."

Objective #4: "An analysis of current Office of the Fire Marshal, Ontario Public Fire Safety Guidelines and National Fire Protection Association Standards to determine options for the optimal level of emergency response deployment to meet the needs and circumstances of the community."

Objective #5: "Work with representatives of Fire Underwriters Survey for the purposes of determining opportunities for insurance premium savings within municipalities."

Objective #6: "A comprehensive consultation program to seek input from fire services staff and other stakeholders."

Fire Underwriters Survey (FUS)

FUS also evaluates and accredits alternative water supplies for public fire protection. To provide fire protection, most communities across Canada utilize water as the primary extinguishing agent. In areas without pressurized, municipal-type water supply systems, alternative water supplies are used in firefighting operations. When developed and executed with a high level of proficiency, systems of shuttling water to and from alternative water supply sources can be as effective as municipal-type water supplies, although typically more labour intensive.

Insurers are advised that Superior Tanker Shuttle Service Accredited areas may be rated as 'hydrant protected.' As a result of this accreditation, residents who own detached dwellings within 8 road kilometers from any accredited stations may be eligible to receive a cost reduction in their fire insurance rates.

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Executive Summary (2016)

To create a plan for the future, an assessment of the past and present must first be conducted. This initial review of the community of East Gwillimbury and its Emergency Services will create a baseline and understanding of where the Emergency Services is in relation to meeting community and staff needs. Once a review is completed, the next step is to look at the future growth of the community and how this growth might affect service demands and expectations. As a final step, coupling the initial review with anticipated future expectations, a set of benchmarks and probable needs can be presumed and recommended.

The Town of East Gwillimbury is located in the northern part of York Region, just 30 minutes north of Toronto, encompassing an area of 238 square kilometres (91.89 square miles). It is a balanced community with the assets of both an urban and rural area. The Town consists of a number of growing urban areas and villages including Holland Landing, Queensville, Mount Albert, River Drive Park, and Sharon.

Currently, East Gwillimbury is serviced by a composite Fire Department that consists of three fire stations. These stations are located in Holland Landing - Station 2-4, in Mount Albert - Station 2-6, and in Queensville - Station 2-8. In total, there are 97 personnel; the Fire Chief, Deputy Fire Chief, an Administrative Assistant, two Fire Prevention Officers, and one Training Officer, along with 16 full- time firefighting staff, and 75 volunteer firefighting staff.

The East Gwillimbury Emergency Services (EGES) responds to over 1,550 calls for service per year. These incidents include, but are not limited to, fire related incidents, medical assistance, water/ice rescues and motor vehicle collisions.

To ensure that they are meeting the needs of the community and its staff, EGES recognizes that it is necessary to update and maintain a Fire Masterplan (FMP) for the purposes of providing high-quality fire services to the residents and businesses of the community, along with its visitors. With the creation of a new FMP, the Town of East Gwillimbury is evaluating all aspects of its service including the operational costs and capital budgets required to maintain or enhance the service.

This FMP for the EGES reviews and identifies current and probable community fire risks and needs over the next 10-20 years. This information will greatly assist the Fire Department with future planning relating to staffing and response, fire and life safety programming and for asset management.

This review has examined and researched all aspects of EGES operations including planning, fire prevention, training and education, communications, apparatus and equipment, maintenance, human resources, station suitability (accommodations) and locations, budgets, and large-scale emergency preparedness.

This Fire Masterplan document is a culmination of three individual reports:

- The 2017 Fire Masterplan document, which contains a total of 16 recommendations
- The present (2017) Fire Underwriters Review document (FUS), which contains a total of 17 recommendations
- As noted in the 2006 – 2016 FMP review, there were a total of 41 recommendations. Of these more than 30 recommendations have been completed. Recommendations in relation to Fire Prevention, staffing, and the Green Lane Corridor fire station are being evaluated, along with the concepts of combined recruitment and training initiatives. Many of these concepts have also been noted within this present (2017) Masterplan document.

Based on this 2017 assessment, there is a total of 33 recommendations for consideration by the EGES and its Council. It should be noted that the previous FMP and FUS documents have been evaluated and information on what is still outstanding has been noted in this document.

A quick reference chart has been included within this executive summary, along with a more detailed chart that includes timelines for implementation and estimated costs, which can be found in Section 13 of this document.

FMP Recommendations for East Gwillimbury Emergency Services	
Rec #	Recommendation
1	It recommended that the Department actively recruit for volunteer/paid-on-call firefighters that work rotating shifts or straight nights to improve daytime response numbers by the volunteer/paid-on-call firefighters who are not available during daytime hours. Another option for consideration is to hire those that may not live in East Gwillimbury, but do work in the area and have support from the local employer to occasionally leave work to attend emergency incidents.
2	It is recommended that upon completion of the SRA/CRA and IRM, the Fire Chief provides Council with a draft policy for review and passage that outlines a fire inspection program to address identified needs and expected outcomes of the program. This program should outline the building types and the frequency of inspections.
3	It is recommended that the Fire Department meet with appropriate local community groups to form a partnership in relation to organizing fire safety and public education events that can be tailored to the unique needs and challenges within the community. • In the community stakeholder meeting held on November 29, 2016, the idea of greater community utilization was noted, along with more use of electronic media for public education awareness.

4	It is recommended that to verify that the Training and Education Branch is meeting related NFPA (and other) training program recommendations, the Training Officer should identify: • what training programs are required in relation to the services that EGES is providing; • the number of hours that are required to meet each of those training needs; • resources required to accomplish this training; • joint partnerships with bordering fire departments and private organizations that can be entered into to achieve the training requirements identified by the Training Officer; • and should continue to enhance the annual and multi-year program development, with noted goals and expectations, which are measured and reported in relation to completion success rate at the end of each year.
5	EGES should continue to search out opportunities to conduct joint training programs with other N4 departments by securing/scheduling neighboring training facilities whenever possible.
6	It is recommended that EGES explore partnership opportunities to build a training facility within the N4 capture area, which would be a cost-effective measure for all the N4 departments. This training facility could start off with simply securing land, which is located within a somewhat central area and can be easily accessed by all four fire departments. Once that land is secured, training pads, structures and more can be built as time and finances allow. • Another option available is to inventory present facilities and what opportunities these offer for joint training programs, whether that be for present training needs and/or for recruit firefighter training.
7	It is recommended that continued enhancement of the full-time Fire Officer resources be incorporated into an annual fire prevention program on a more formal basis. To accomplish this, all full-time officers should be trained and certified to at least: • NFPA 1031 – Fire Inspector I, and • NFPA 1035 – Fire and Life Safety Educator I By having all full-time officers trained to the noted levels, EGES will have a greater number of resources to draw upon in its public fire safety education and inspection programs.
8	To prepare for future staffing retirements and/or promotions, succession planning for Community Education and Prevention Branch and Training Branch personnel should be addressed to ensure trained personnel are ready to take over when the existing personnel retire.

9	The Fire Chief should investigate opportunities to promote retention of the volunteer/paid-on-call firefighters as noted in the OFMEM document (Appendix "D"). The Fire Chief should continually recruit for volunteer/paid-on-call firefighters in areas that are presently understaffed or have issues with response numbers to calls.
10	The Department should complete certification for staff for each position (that requires or recommends certification) and ensure that certifications are maintained.
11	It is recommended that the Fire Chief present a standard of cover for Council approval. This standard would also speak to response time criterion, whether that is the NFPA 1720 – 15 staff in 9-minutes rule for urban communities or the 10 staff in 10-minutes rule for suburban community populations. A look at the NFPA 1710 standard of 4-minute drive-time for full-time crews should be considered when EGES grows its full-time staff beyond the present level.
12	It is recommended that the Fire Chief continue to track call volumes and response times to the Green Lane and 2nd Concession corridor to ensure that EGES is able to keep up with the increase in service demand for this growing area of the Town. This tracking of calls should be coupled with identifying any reliability related concerns with the Holland Landing Station's ability to serve this area.
13	The present dispatching agreement with the current dispatch provider should be updated to include NFPA related standards for EGES to incorporate the necessary performance measures as per the NFPA 1221 standard.
14	It is recommended that EGES continue to follow through with the three-year repair/upgrade plans for the Holland Landing fire station.
15	The Town (with support from EGES) should follow through with the hiring of a vehicle maintenance technician who is qualified to work on large and small fire department vehicles and has the Emergency Vehicle Technician (EVT) certification, or can obtain it after being hired. This can be accomplished by EGES hiring its own EVT or partnering with the other N4 departments. • This recommendation offers a collaboration opportunity for the N4 group by utilizing existing facilities that are central to all four departments. This cost sharing initiative of one EVT to service the N4 group could be accomplished either through a fixed facility and/or mobile response unit. • One other option is for a 3rd party service company be contracted to work on the fire department vehicles out of a joint facility.

16	It is recommended that a full review of mutual aid agreements that are in place be completed in the short-term to identify any required revisions. • It is further recommended that EGES explore and enter into any automatic aid agreements that would support opportunities for service and cost related efficiencies.

Overview

Project Initiation

In 2016, the Town of East Gwillimbury along with the Town of Georgina, Township of King and Town of Whitchurch-Stouffville, participated in overseeing the issuance of an RFP on behalf of the municipalities involved for the preparation of the four Fire Masterplans and the collaboration analysis.

In describing the comprehensive, collaborative nature of the RFP process, it was also made clear that there was no intention to investigate any aspect of fire amalgamation.

As the successful bidder, Emergency Management and Training Inc. (EMT) has worked collaboratively with the Town of East Gwillimbury and the East Gwillimbury Emergency Services in the gathering of data and development of this FMP. EMT would like to thank all staff and the community for their input into this plan.

Review Process and Scope

Emergency Management and Training Inc. (EMT) has based its review process on the Town's initial Request for Proposal (RFP) and the response document submitted by EMT.

The noted specific areas (in the N4's RFP) were reviewed by utilizing best practices, current industry standards, and applicable legislation as the foundation for all work undertaken. EMT also used both quantitative and qualitative research methodologies to develop a strong understanding of current and future needs and circumstances of the community, and customer service demands of the public.

The review included, but was not limited to, the following key areas:

a. Staffing needs – review capabilities of existing staffing and identify future needs for each of the following divisions: Suppression, Training, Prevention and Administration.

b. Facilities – review capacity and condition of existing facilities and plan for future needs. Specific attention is required regarding the facility needs for the Training Division, Prevention Division and Administration.

c. Station location – review of existing locations relative to the current and future demands and consideration of potential needs for relocation or additional stations.

d. Apparatus – review existing vehicles and replacement plans relative to the existing and expected demands as well as the review of how apparatus maintenance is conducted and best practices thereof.

e. Service Level Standards – review established benchmarks to ensure they meet the communities' needs and reflect best practices and establish comparable joint Key Performance Indicators that can/will be used to identify performance of the various fire services.

f. The report is a review of the existing Fire Masterplan and an expansion of that document.

g. Plan outcomes must establish strategic priorities complete with action plans. These shall be expressed in terms of goals, objectives, action steps, resources (human and financial) and the timelines required to successfully complete the priorities.

The study is to also include an updating of the Fire Underwriters Survey (FUS) rating to identify potential opportunities for insurance premium savings for property owners in the municipality.

The review process included a survey of the Council members, the Chief Administrative Officer (CAO), the community, fire administration, and firefighters to seek input regarding the project components.

Based on the previously noted seven criteria (a – g), through meetings with the Fire Chief and other stakeholders, the consulting team was able to complete a thorough review of elements that are working well and those requiring improvement within the EGES. During the program review, the consulting team conducted an assessment of staffing, fire facilities, vehicles and related operations. Data provided by the Fire Department was also reviewed in relation to all the previously noted items contained in the Town's request for proposal (RFP).

Based on the review of the Fire Department's facilities, equipment, programs and related data, EMT is submitting a total of 16 recommendations (noted in this FMP report) that can be implemented.

The Fire Underwriters group also conducted their own review of the EGES and has submitted a total of 17 additional recommendations. The recommendation summary found in the FUS report has been included in Section 12 of this document.

Performance Measures and Standards

This FMP update has been based upon (but not limited to) Key Performance Indicators that have been identified in national standards and safety regulations such as:

- The Ontario Fire Marshal's Office and Emergency Management (OFMEM) Public Safety Guidelines
- *The Fire Prevention and Protection Act*
- The National Fire Protection Association (NFPA) Standards
    - NFPA 1221 addresses recommended standards in relation to communications/dispatching services
    - NFPA 1710 addresses recommended standards for career fire departments
    - NFPA 1720 addresses recommended standards for volunteer fire departments
    - NFPA 1730 addresses recommended standards for fire prevention and education activities
- The Commission on Fire Accreditation International, which is a program that evaluates a Fire Department based on related NFPA standards, local legislation and industry best practices (the parent organization for CFAI is the Centre for Public Safety Excellence (CPSE))
- Office of the Fire Marshal and Emergency Management's (OFMEM) Integrated Risk Management program
- The *Ontario Health and Safety Act*., National Institute for Occupational Safety and Health (NIOSH)
- Ontario Fire Service – Section 21 Guidelines
    - The Section 21 Committee is based on Section 21 of the *Ontario Occupational Health and Safety Act*. This committee is charged with reviewing industry safety concerns and developing recommended guidelines to reduce injuries for the worker.

Project Consultants

Although several staff at Emergency Management and Training Inc. were involved in the collaboration and completion of this Plan, the overall review was conducted by:

- Darryl Culley, President Emergency Management and Training Inc.
- Lyle Quan, Fire & Emergency Services Consultant
- Richard Hayes, Fire & Emergency Services Consultant, and
- Paul Leslie, Fire & Emergency Services Consultant

Together, the team has amassed a considerable amount of experience in all areas of fire and emergency services program development, review and training. The EMT team have worked on projects that range from fire service reviews, creation of strategic and fire masterplans and development of emergency response programs for clients.

ESCI Update: (2022)

In 2022, ESCI was asked to provide an update to the East Gwillimbury Fire Master Plan along with suggested modernization ideas. In the time since the 2016 Fire Master Plan was completed, East Gwillimbury has continued to grow and was recently recognized as the fastest growing community in Canada with a projected population in 2051 of 125,000 people, over 350% higher than its current population of 37,000.

In 2020, a collaborative report was produced by the Center of Public Safety Excellence and the International City/County Management Association that was called the 21st Century Fire and Emergency Services[1]. The purpose of the report was to recognize the changing dynamics of local government and community, their impact on the local fire and emergency services, and provide strategic initiatives on how to remain aligned with those community changes. More specifically, how does the local fire and emergency services:

- remain relevant for our jurisdictions
- have the greatest impact in a rapidly changing environment
- be sustainable
- address the needs of the whole community — its residents, businesses, governing body, and the personnel who will be tasked with carrying out the mission.

The report identifies critical areas that will require attention in order to thrive in the future. They are:

1) Re-identification of the fire and emergency services
    a. Celebrate the heritage of the fire and emergency services while recognizing that services provided have evolved and will continue to experience significant changes over the next 30 years.

2) Culture of the profession
    a. Enhance alignment between community, elected officials, management, labour/volunteer representatives, and overall workforce.
    b. Promote an organizational environment that is adaptable, open to change, innovative, and focused on continuous improvement.
    c. Establish organizational expectations for employee education, credentialing, and continued professional development.

[1] - https://www.cpse.org/wp-content/uploads/2020/07/21st-Century-Fire-and-Emergency-Services-White-Paper-Final-07.15.20.pdf

3) The robust use of data
    a. Utilize quality data for evidence-based decision making to assess and produce the best outcomes.
    b. Implement advanced data analytics to make informed decisions.
    c. Develop comprehensive records management systems (RMS) to collect and analyze data effectively.
    d. Focus on developing outcome-based data for all measurable operations and functions within the organization.

4) Health and wellness threats
    a. Champion research on the health impacts specific to the fire and emergency services to evaluate the health risk of consecutive hours worked, sleep disruption, and the impacts on employee health.
    b. Proactively address the increased mental health challenges facing the fire and emergency services.
    c. Adopt and support fitness and wellness best practices throughout the whole organization and incorporate this philosophy in every aspect of operations.
    d. Ensure ongoing physical fitness and wellness requirements are standardized, adopted, and used within every department.
    e. Continue research toward the development of comprehensive decontamination procedures for the fire and emergency services.
    f. Urge personal protective equipment (PPE) manufacturers to develop new PPE and bio-metric sensors to ensure effectiveness, reduce equipment weight, and provide for the enhanced ability to monitor the physiologic health and stress markers for personnel during response to an incident.

5) Opportunities for partnerships
    a. Acknowledge the need to work with a wide range of partners to serve the community and develop local strategies to create new approaches to providing services more effectively.
    b. Promote a symbiotic relationship with other internal departments and outside agencies that are routinely allied responders to an incident.
    c. Continue to expand community emergency response capabilities.

6) Sustainability challenges
    a. Address aging fire and emergency services vehicles and building structures.
    b. Reconsider and revamp current deployment methods.
    c. Develop sustainable pension model.
    d. Adopt and implement a community risk reduction strategy.

e. Improve resource allocation by focusing on the outcomes trying to be achieved.
f. Examine fixed costs associated with current delivery models and associated contracts.
g. Explore public/private partnership opportunities.
h. Research strategies to assist communities in sustaining their paid-on-call fire and emergency services or, if needed, how to transition to a new model.
i. Dramatically revamp the fire and emergency services education and training model to provide the needed skill sets, knowledge, and abilities required for the anticipated changes in the future and to remain current with the application of emerging technologies.

7) Technology advancements and adoptions
   a. Adapt to and leverage rapidly evolving technology to improve service delivery.
   b. Develop a change mindset to help anticipate and support appropriate use of emerging technology and encourage the development of new technologies.

8) Inclusiveness of the fire and emergency services
   a. Make it an organizational priority to recruit, select, and promote members who reflect the demographic makeup of the community they serve.
   b. Understand the community characteristics, culture, and diversity that exist and determine the most appropriate way to serve and interact with all community members.

Modernization of the fire service will not only be adopting the latest operational tactics and techniques but also revising how we approach our organizational mission, determine the community risk for which we exist and deliver services to the community that prevent, mitigate and respond to that risk. The ESCI updates and recommendations in this document are reflective of these modernization efforts.

The original plan, which is included in this document, was created in 2016 by Emergency Management and Training Inc. (EMT).

SECTION 1- Department & Community Overview

1.1 Fire Department Overview

1.2 Community Overview

Section 1: Department and Community Overview

1.1 Fire Department Composition

The East Gwillimbury Emergency Services covers an area of approximately 238 square kilometres and serves a population of approximately 25,000 people with an anticipated growth of approximately 75,300 by 2031 and a forecasted population of 150,000 people by 2051. East Gwillimbury is located in central Ontario at the top of the Greater Toronto Area (GTA) in northern York Region. The community consists of a mix of residential, farm lands and commercial properties dispersed throughout the Municipality.

Presently (as noted in the Executive Summary), EGES responds to an average of over 1,550 calls per year. Full-time administration staff includes:

- Fire Chief
- Deputy Fire Chief
- One full-time Administrative Assistant
- A Training Officer
- Community Education and Prevention Branch consisting of one Fire Inspector and one Public Educator

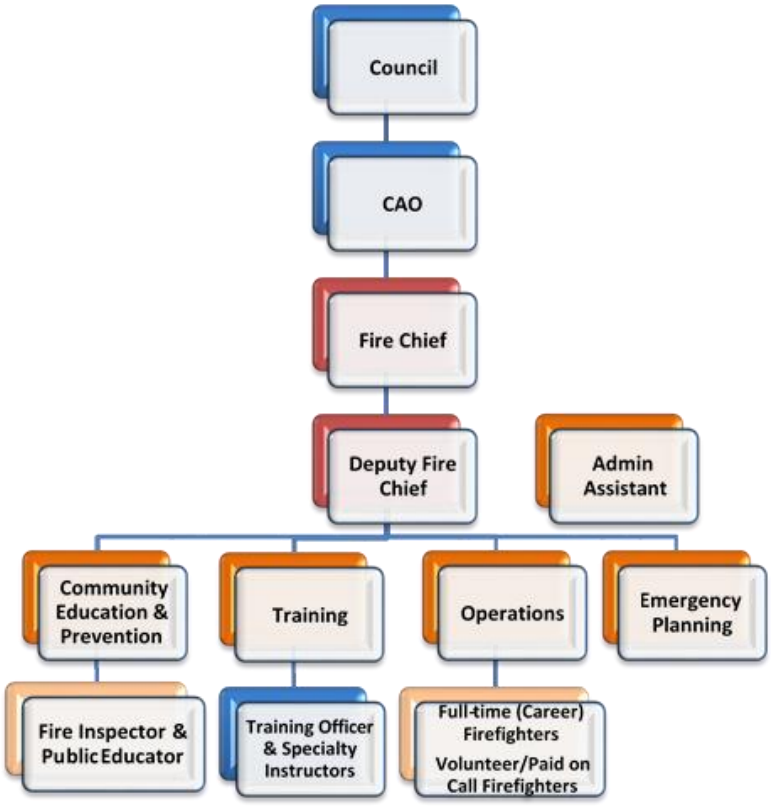
The Department is served by a combination of full-time (career) and volunteer/paid-on-call firefighters. The Holland Landing Station (2-4) and the Mount Albert Station (2-6) are volunteer/paid-on-call stations. The Queensville Station (2-8) is a blend of full-time and volunteer/paid-on-call response. The full-time crews at the Queensville Station are called out on all emergency related calls to make the best use of the full-time firefighters ensuring a more effective and efficient response.

The total firefighting force for the Fire Suppression/Operations Division consists of:

- Full-time firefighting force of 16 people at Queensville
- Volunteer/paid-on-call firefighting force of 81 people, dispersed throughout the three fire stations.

The organizational chart noted in figure #1 reflects the general reporting structure within the Fire Department and that of the Fire Chief to the CAO and Town Council.

FIGURE 1: Fire Department Organizational Chart



This current reporting arrangement allows for a sufficient level of involvement by the Fire Chief within the senior management structure of the Town and also allows for a high-level of administrative oversight of the day-to-day operations of the Fire Department.

1.2 Community Overview

As previously noted, the Town of East Gwillimbury is located in the northern part of York Region, and encompasses an area of 238 square kilometres. It is a balanced community with the assets of both an urban and rural area. East Gwillimbury boasts a variety of living environments including fully serviced urban areas, partially-serviced suburban areas, rural hamlets, estate residential subdivisions and rural agricultural land.

The Town consists of a number of growing urban areas and villages including Holland Landing, Queensville, Mount Albert, River Drive Park, and Sharon. These urban areas are separated from each other by farms, forests, countryside residences and recreational areas which all add to the overall character of the Town. These communities are protected by fire stations that are located in Holland Landing, Mount Albert and Queensville.

East Gwillimbury is well served by more than 350 kilometres of roads linking the communities within the municipality to each other and to markets beyond. Metropolitan Toronto to the south and the recreation areas to the north can be accessed by Highway 400, Highway 48 or Highway 404, each lying within or near the Town.

The Town also offers two major CN lines providing connections to Toronto and Western Canada. Inter-city commuter rail and bus service is provided by GO Transit. Lester B. Pearson International Airport is under an hour's drive from the Town. The nearby ports of Toronto, on the St. Lawrence Seaway System, allow access to worldwide shipping lanes.

All of transportation factors along with the close proximity to Metropolitan Toronto make East Gwillimbury an ideal location for residential, commercial, and industrial growth.

Community Growth

East Gwillimbury is set to grow from the present population of approximately 25,000 to 85,000 by 2031, and up to 150,000 by 2051. This equates to an overall growth of as much as 600% by 2051. This type of growth will require dramatic changes for the Fire Department in its efforts to meet the increase in call volume that will most definitely occur as the population and traffic flows increase.

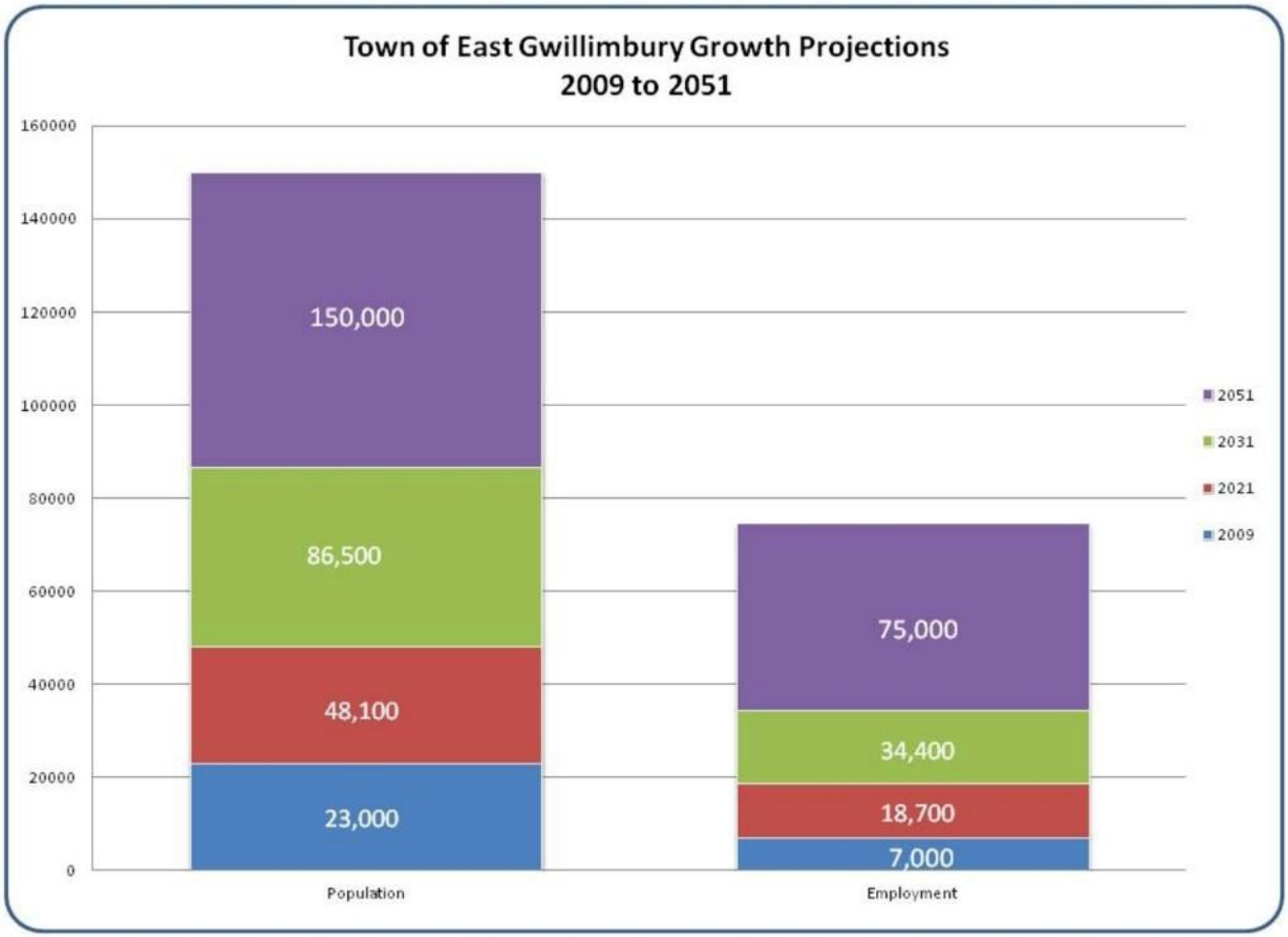


Chart obtained from East Gwillimbury Town Web Site – January 2017

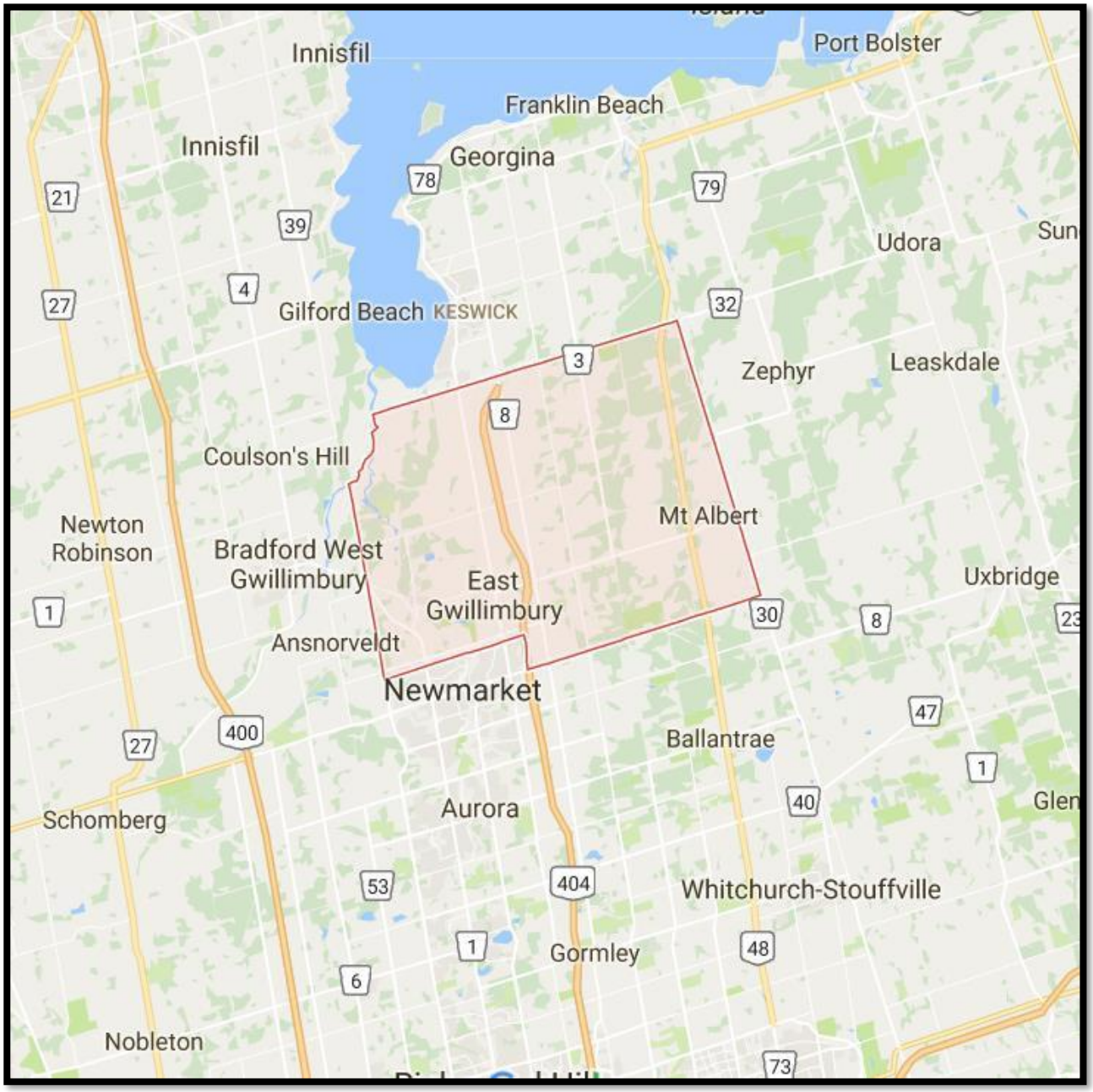
There is no existing standard dictating the quantity or status (full-time, composite, or volunteer) of firefighters within a community. While some municipalities have referred to other similar sized municipalities as a guide for firefighter staffing numbers and types (i.e. full-time or volunteer) every community is unique in its geographical composition, population demographics and size of residential, commercial and industrial sectors. Therefore, community comparisons should be utilized keeping these factors in mind.

There is no doubt that the call volume for the EGES will increase, simply based on the influx of people, traffic, industry, and housing over the next 10 years. As such, careful monitoring of call volumes and response times is critical when it comes to determining whether the Fire Department is keeping up with its response expectations or is facing challenges. This review of response data is why EMT requested a full three years of data; this data creates a reliable baseline for identifying how well the Fire Department is meeting related industry response standards, such as those noted in the National Fire Protection Association standards.

The community has hired a Fire Chief to manage the Department and to advise on the needs of the organization and, as such, the information and recommendations provided by the Fire Chief should be taken into consideration when deciding on future fire and emergency service needs of the community.

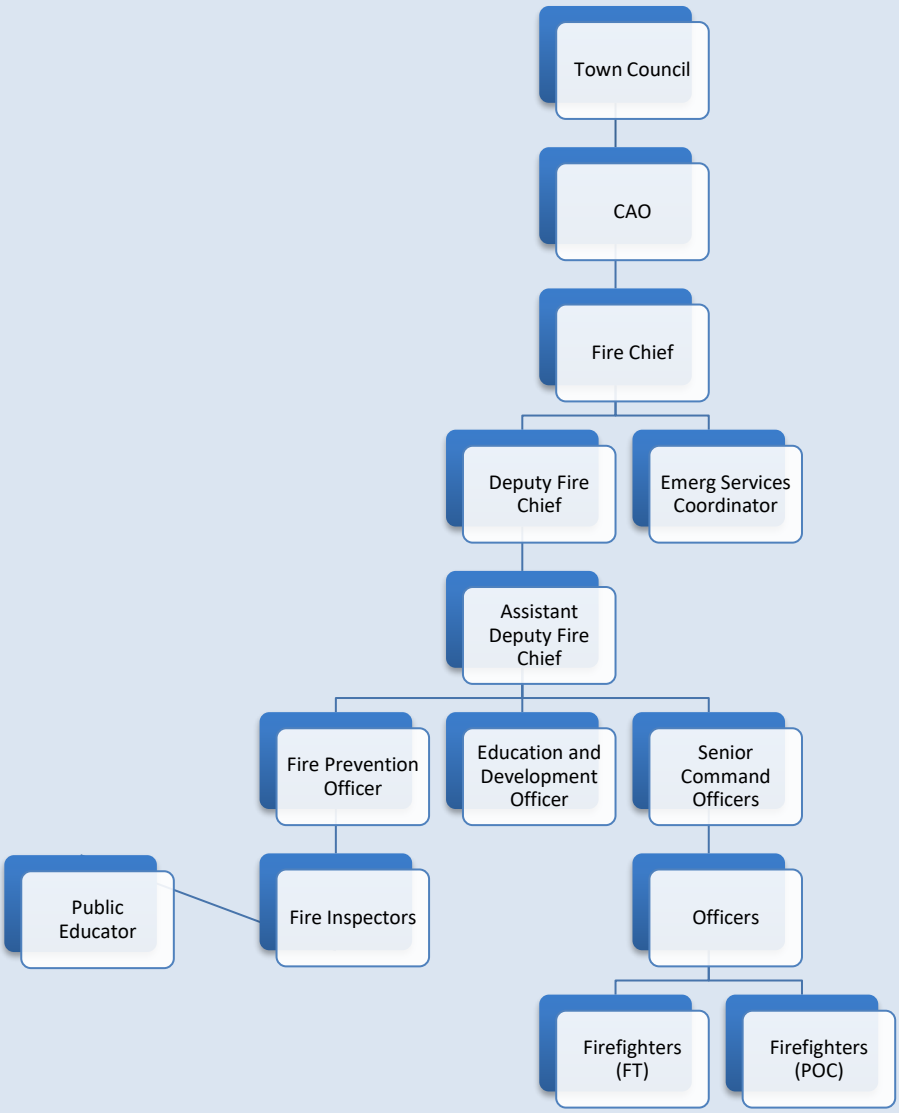
FIGURE 2: The Town of East Gwillimbury Boundaries and Approximate Fire Station Locations

FIGURE 3: East Gwillimbury Relative to Surrounding Communities

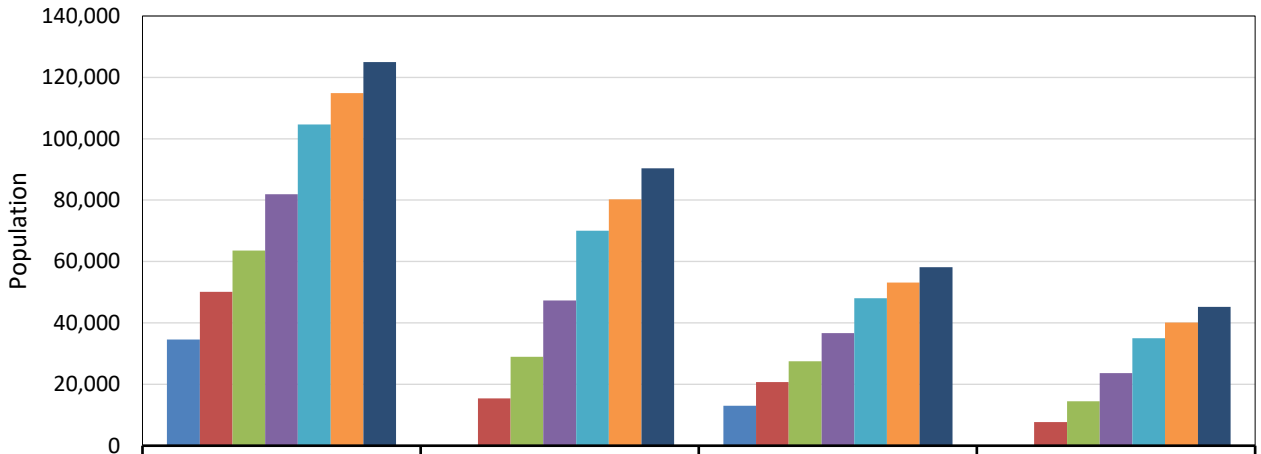


ESCI Update (2022):

As of 2022, ECSS has added one Assistant Deputy Fire Chief and two Fire Inspectors increasing the full-time staffing from 16 to 18. The following chart is the updated organizational chart:



Updated population projections for the Town according to the latest York Regional Development Plan are East Gwillimbury will grow from its current population of approximately 37,000 to 125,000 by 2051.



	POPULATION*	Net Change (2021)	EMPLOYMENT**	Net Change (2021)
2021	34,637		13,000	
2026	50,100	15,463	20,732	7,732
2031	63,600	28,963	27,482	14,482
2036	81,900	47,263	36,632	23,632
2041	104,700	70,063	48,032	35,032
2046	114,850	80,213	53,107	40,107
2051	125,000	90,363	58,182	45,182

ESCI Update: (2022)
It should be expected that demand for services provided by ECSS will increase as a result of community growth. Both residential and business growth may cause increases in:

- Community education programs
- Fire code inspections
- Training, education and development
- Call volume

Modernization:
Growth of a community requires continual analysis of service delivery to ensure that the existing model meets the needs of the community. Several departments on the east coast of the United States and in Canada use a composite department model but the proportion of career versus paid-on-call is significantly weighted on the career side. This is primarily due to workload that is expected when serving a larger population. In addition, population growth is likely going to be dominated by a transient population that moves into the area rather than expansion due to growth of the existing population. This means that civic service will likely shift away from a local fire department to other services within the community that require less time commitment.

Recommendation #1*:*
Establish standards:

ESCI recommends that, since the mission of ECSS is to provide quality service to the community, the fire chief should develop indicators of when the service models should be assessed are when the services show signs of strain. Department growth cannot be based solely on the NFPA response standards (1710 and 1720). Fire suppression triggers, such as turnout and response times, recruiting, retaining and ongoing attendance of paid-on-call staff, etc. are elements to be monitored for the signs of strain.

In addition, it is recommended that ECSS use a variety of tools and programs, such as the Community Risk Assessment, statistics and data from the Office of the Fire Marshal and local data to determine appropriate Key Performance Indicators (KPIs) for the public education, prevention and training divisions.

Cost:
Based on the growth rate and forecasting, ECSS staff to adequately budget and account for all three lines of defence services, both short and long term.

Timeframe:
Ongoing

SECTION 2 – Planning

2.1 Three Lines of Defence
2.2 Strengths Weaknesses Opportunities and Threats
2.3 National Fire Protection Association Standards (NFPA)
2.4 Commission on Fire Accreditation International (CFAI)
2.5 Stakeholder Surveys

Section 2: Planning and Stakeholder Surveys

Planning is a key function of any organization and should be done with a focus on the present needs of the community, coupled with its future growth and how this will affect the service demands on the Fire Department. Through the work completed on their previous FMP (refer to Section 11, page 144 for further information) and the implementation of this FMP update process, EGES has clearly demonstrated a proactive approach towards its planning initiatives.

2.1 Three Lines of Defence:

Even though this review and its recommendations are grounded, in part, on the future configuration and utilization of the fire stations and its staff, it should be noted that the key focus, based on the Office of the Fire Marshal and Emergency Management (OFMEM), revolves around the following three lines of defence in relation to servicing the community (i.e. Education, Inspection and Enforcement and Emergency Response as described earlier in this report).

Based on these three lines of defence, the following strengths, weaknesses, opportunities and threats were identified:

2.2 Strengths, Weaknesses, Opportunities and Threats

This entire FMP document is the result of conducting a SWOT (strengths, weaknesses, opportunities and threats) analysis on the community, which has resulted in a list of recommendations for the Town's Council, CAO and Fire Chief to consider and implement.

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

As a starting point, this review has identified the following key SWOT themes: Strengths

The Town of East Gwillimbury benefits from having three fire stations responding to emergencies. One of these three stations (Queensville) is staffed by full-time firefighters, 24 hours a day, 7 days a week. The other two fire stations, located in Mount Albert and Holland Landing are 100% volunteer, and are supported by the full-time staff from the Queensville fire station. Even though the Queensville fire station has a full-time compliment of firefighters, it is also supported by a team of volunteer/paid-on-call firefighters.

The EGES has strong relationships with neighbouring departments and a long history of cooperative services.

The Community Education & Prevention Branch is very proactive within the community in relation to education and fire safety inspections and enforcement.

Weaknesses

The EGES has limited full-time fire suppression staffing which means that it cannot maintain more than one crew capable of initially responding to any emergency (24-hours per day, 365 days per year). The Department does have a compliment of volunteer/paid-on-call firefighters that can respond to calls, but due to other commitments, such as their full-time jobs and family obligations, there is no guarantee these volunteer/paid-on-call firefighters will be available to respond adequately within the time frame required.

Presently, the response data confirms that EGES is doing a respectable job at falling within acceptable parameters of recommended industry best practices, which is illustrated through NFPA 1710 and 1720 in Section 4 on page 71 and the response data noted on pages 69-75.

Due to the growth of the Town, along with increased traffic flow, there is a belief that more focus needs to be placed on keeping ahead of this growth through the following actions:

- ensuring that staffing levels support a complete response to emergencies, and that
- training programs are focused on meeting the needs of the firefighters.

Opportunities

EGES has a mutual aid program in place in which it can call on neighbouring fire departments for assistance whenever resources are exhausted and/or there is an inability to handle the situation in an efficient and effective manner. Mutual aid is not meant to supplement EGES's resources, but to be used when no other options are available such as automatic aid and fire services agreements. Automatic aid and fire service agreements offer the community a more consistent level of response to areas where support is required by the local fire department.

As such, continued, active planning and cooperation with neighbouring municipalities can be a cost-effective option by implementing fire service area agreements with a focus on the opportunity to establish automatic aid agreements, where feasible.

Threats/Challenges

Major emergencies stressing the available full-time and volunteer suppression division staffing and equipment must be considered as the community's population continues to grow (both in the residential and commercial sectors) and age. This is a challenge that needs to be considered by most communities in the Province of Ontario.

The best way to deal with such challenges is to plan ahead by using related industry standards and to look at comparable communities in relation to how they have dealt with community growth. However, in completing this type of review, the Fire Chief must be aware that no two communities are identical. Each community has its own unique challenges due to demographics, topography, and percentage of residential, commercial and industrial areas, along with transportation and road network challenges.

Another challenge seen by all communities is the so-called "50 year storms". Due to changes in climate, inclement weather incidents, such as freezing rain/ice storms, are becoming more commonplace and need to be part of the emergency response program for each community. This change in climate conditions along with the resulting frequency and severity of incidents has also predicated the need for a larger response component to these emergencies.

Daytime response by the volunteer/paid-on-call firefighters is a challenge due to their other commitments, such as full-time jobs within or outside the community. This is a challenge for most fire departments that depend on responses from the volunteer/paid-on-call contingent. A possible option to this dilemma is to actively recruit for volunteer firefighters that are on shift work or straight nights and are available in during daytime hours.

Another key challenge for EGES is the projected population growth within the community along with an increase of commercial, industrial and transportation developments. With a current population of approximately 25,000 people, and an expectation to grow to approximately 150,000 people by 2051, the Fire Department will be facing a significate increase in call volume as well as a marked change in traffic flow throughout the Town.

One area that will need to be monitored due to this growth (both in traffic and industry) is the Green Lane and 2nd Concession corridor – Woodbine to Yonge St. The Fire Chief should continue to track call volume and response times to this area as the present response from the Holland Landing fire station is hampered due to the residential areas that the fire trucks must navigate, along with the fact that Holland Landing fire station is dependent on volunteer/paid-on-call firefighter turnout, which also increases response times.

ESCI Update: (2022):

ESCI did not conduct a formal internal SWOT analysis. However, through over fifty stakeholder interviews and surveys, the following format presents opinions and observations.

Strengths:

ECSS continues to operate from three fire stations with the awareness that with community growth, an additional fire station, location still to be determined, is likely on the horizon.

The department is proud of its commitment to community safety through education, preventing fires, injuries, and promoting the annual Smoke and Carbon Monoxide Alarm Program.

In addition, ECSS continues to use a staffing model that is fiscally responsible. The department has a deep desire to continue to operate with a composite model across all three fire stations.

ECSS staff consistently demonstrated a spirit and desire to progress.

Weaknesses (Challenges):

Large geographical areas such as East Gwillimbury (238 sq. km) can make incident mitigation and management a challenge. Due to the large geographical area, some incidents will result in multi-unit response with extended response times to mitigate the emergency safely.

Another challenge of a composite model is consistent availability of a set number of resources. This can be addressed by the development of response agreements with neighboring fire departments who can offer support and assistance.

The composite model may result in different responding and arrival times for emergency vehicles. This means the initial crew arriving on a scene may have limited resources at the onset of an incident.

Most of the East Gwillimbury response area falls under the NFPA 1720 ‘rural’ classification, which is a population density of less than five hundred people per square mile (two hundred per square kilometer) and suggests the standard of six firefighters on scene within fourteen minutes eighty percent of the time.

Based on the statistics from the Office of the Fire Marshal, the response time for the first arriving apparatus for composite departments in Ontario is 13min 36sec or less, 90% of the time. ECSS average response time for the first arriving apparatus is 13min 24sec or less, 90% of the time.

Response times are only one component for consideration and applicable standards are challenging to implement in their entirety. NFPA 1720 states that the authority having jurisdiction determines if the standard is applicable to its fire department. ECSS will use a variety of standards, data, and best practices to determine appropriate service levels.

Opportunities:

The opportunities cited in the 2016 FMP still exist. Response agreements are widely accepted as a means of communities supporting each other and enhancing service effectiveness without the cost of additional personnel provided there is a mutual and equivalent balance of benefit to all communities involved. For example, response agreements are a form of agreement where response units from different municipalities are simultaneously dispatched for incidents within a predetermined area. Other jurisdictions responding to an incident alongside the initial jurisdiction response, will create a heavier and potentially more effective response force.

While local control is usually the main obstacle to regionalization of the 8 fire departments, the willingness of East Gwillimbury and Georgina to consolidate and examine its benefits is a positive step for both communities and organizations. Potential efficiencies and future cost-avoidance as well as opportunities for increased professional development via a larger organization can enhance community service and employee well-being.

Threats:

All of the threats cited in the previous 2016 FMP still exist with a highlight to the call volume in the Holland Landing area. ECSS data shows that the area of highest call volume density continues to be served from the Holland Landing station (2-4). This station is staffed primarily with paid-on-call firefighters.

In addition, East Gwillimbury is recently recognized as the fastest growing community in Canada. ECSS continually monitors and adjusts its deployment strategies based on community growth. Regardless, any transition can create significant internal stress possibly affecting organizational effectiveness.

Through stakeholder surveys, there is a belief that over the course of the next several years, East Gwillimbury's emergency services department is progressing down the road of transitioning from a local composite fire department to a largely career department. These transitions can be challenging at whatever pace is chosen to proceed. The pace of progress is often a source of tension when engaging in discussions about assuming a proactive or reactive response philosophy to change. ECSS will use a variety of standards, data and best practices to determine the appropriate pace for any model transitions that need to be made.

Recommendation #2:
Establish a framework:

ESCI recommends that ECSS continue to establish a framework for departmental growth that is appropriate for a composite department in East Gwillimbury. It is recommended that ECSS use information gathered from recommendation #1 to assist with this framework.

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Ongoing

2.3 National Fire Protection Association (1201, 1221, 1710 and 1720)

To assist with EMT's review and related recommendations, reference has been made to National Fire Protection Association Standards – the North American benchmark for fire services.

NFPA Standard 1201 – Standard for Providing Fire and Emergency Services to the Public Section 4.3.5 notes:

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

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

To provide the fire department clearer focus on what the ultimate goals for emergency response criteria are, the NFPA suggests that response times should be used as a primary performance measure in fire departments. This is where NFPA 1710 and 1720 need to be considered. These two standards are utilized for the following:

- NFPA 1710 Standard – refers to goals and expectations for career fire departments
- NFPA 1720 Standard – refers to goals and expectation for volunteer fire departments

Note: More information relating to these two standards can be found in Section #4.

The fourth standard noted is NFPA 1221, which addresses the goals and objectives for the taking of calls for service and dispatching of these calls. East Gwillimbury Emergency Services receives its dispatching services from Richmond Hill Fire Department. EGES has adopted the use of response time measurements as a guide to evaluate their capabilities in relation to the previously noted NFPA standards. However, EGES's Establishing and Regulating By-law does not actually specify what response time criteria is expected of its Fire Department. This alone does not restrict EGES from

tracking and reporting on its level of service, on a year-to-year basis. In fact, this is a good practice for the Fire Chief, as it allows for a proper assessment of response types, number or responses and a thorough evaluation of response times to assess if the Fire Department is able to keep up with the demands of the community.

2.4 Establishing & Regulating By-Law

The current Establishing & Regulating By-Law, which was updated in June 2011, is now over six years old and should be reviewed by the Fire Chief for accuracy to assess its reflection of the community needs.

To assist the Fire Chief in meeting the needs and expectations of Council, the E&R By-law notes that the Fire Department shall respond to a variety of incidents (noted below) designed to protect the lives and property of the inhabitants of East-Gwillimbury. The following list has been extracted from the 2011 Establishing and Regulating By-law #2011-079:

ESCI Update: (2022):

NFPA standards are goals to strive for however, it is an imperfect task to try and achieve every national standard. However, even if the objectives identified within the standards may not be achievable or realistic, the models behind NFPA 1710 and 1720 still offer an approach that can be set in place to monitor the efficiency of the organization.

The annual evaluation section of NFPA 1720 (Section 4.4.2) states the following:

"4.4.2.1 The fire department shall evaluate its level of service, deployment delivery, and response time objectives on an annual basis.

4.4.2.2 The evaluations shall be based on data relating to level of service, deployment, and the achievement of each response time objective in each demand zone within the jurisdiction of the fire department.''

Part of the intent of the standard is to have a measurable performance outcome and a standard in which to measure it against. Taking into account community risk, finances, values, operational standards, employee effectiveness and other factors, community leaders choose a level of service to provide to the community. NFPA standards are one source to help direct the discussion. The performance standard then becomes the performance objective and if community leaders decide to modify the level of service, the performance standard gets raised. Community leaders should periodically review the set performance standards along with outcomes to determine if adopted standards are being met.

Modernization:

NFPA 1720, Standard on Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments, sets a response standard of 14 minutes for 80% of all calls. This can be a starting point for discussion, and while this standard may not be achievable, 14 minutes to 50% of the calls may be. In addition, having this standard gives the community the opportunity to see where its risks are located, which then leads to a discussion about possible solutions.

Measurable outcomes and transparency are some of the easiest ways fire departments can provide transparency to their stakeholders. If a performance standard is being met, resources are sufficient or in excess. If a performance standard is not met, existing resources may need to be redeployed more efficiently, or the performance standard should be evaluated. Either way, transparency on the state of a local fire department is well-

documented.

Lastly, NFPA 1710 and 1720 are undergoing a revision that will be called NFPA 1750 and will combine both standards into one.

Recommendation #3:
Obtain Council approval:

ESCI recommends the Fire Chief, with Town Council approvals, should adopt measurable performance standards/KPIs for each of the three lines of defence.

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Medium (2 - 5 yrs)

Recommendation #4:
Monitoring:

ESCI recommends the Fire Chief continuously monitor the department's overall performance based on the established and adopted standards.

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Ongoing

Core Services:

Fire Suppression and Emergency Response:

1. Fire suppression services shall be delivered in both an offensive and defensive mode and shall include search and rescue operations, forcible entry, ventilation, protective exposure, salvage, and overhaul, as appropriate.
2. Emergency pre-hospital care responses and medical acts or other first aid/CPR service shall be maintained as per local protocol as appropriate and instituted as per the latest Emergency Service Agreement (tiered response agreement) and appropriate to the needs of the municipality as recommended by the Fire Chief and as agreed.
3. Special technical and/or rescue response services shall include performing automobile and/or equipment extrication using hand tools, air bags, and heavy hydraulic tools as required, and water/ice rescue (water based), confined space rescue (operations/limited technical level), and hazardous materials response (emergency awareness level), in accordance with available resources. Other specialized rescues (such as HUSAR, trench rescue, operational, technical level hazardous materials response, etc.) shall not be provided by East Gwillimbury Emergency Services. The Town may contract other agencies to provide this service in an emergency incident and EGES will provide assistance, as appropriate, to the level of skills and training afforded at the awareness level or its current capability.
4. The Ontario Firefighter's Curriculum, International Fire Service Training Association "Essentials of Firefighting", Ontario Fire Service Standards and other related industry standards and reference material may be used as reference guides for East Gwillimbury Emergency Services training as approved by the Fire Chief. All training will comply with the *Occupational Health and Safety Act* and applicable provincial legislation.

Fire and Life Safety Education:

1. Distribution of fire and life safety information and public education programs shall be administered in accordance with the FPPA and policies of the Department's Fire Prevention Division.
2. A residential home fire safety and smoke alarm awareness program shall be ongoing.
3. Smoke alarms for residential occupancies shall be provided to those in need.
4. Fire and life safety communiques shall be distributed using media tools and other outlets as appropriate.

The Commission on Fire Service Accreditation International, (which is viewed as a best practice in the fire service industry) recommends that a minimum of the past three years response times be reviewed. This review will offer an understanding of how the Department has been performing, along with identifying areas for possible improvement in relation to station location, vehicle and staffing distribution.

Evaluating response times is critical in reviewing a department's level of service delivery, but it is only one part of the overall response time criteria to be reviewed. Another area to be reviewed by a fire department is the reliability of a station's vehicle(s) to be available (for calls) within its response zone. More on this concept of reliability will be addressed later in this document. However, it should be noted that the more a station's vehicles are pulled outside of their response zones, the greater the probability exists for that unit not being available due to responding to calls in another district or region. Hence the need to track call volumes, call types, and the general location of the calls.

ESCI Update: (2022):
The current Establishing and Regulating By-law is #2011-079. The 2011 by-law replaced an eight-year old by-law dated 2003.

Recommendation #5:
Bylaw amendment:
ESCI recommends the current Establish and Regulate By-Law, which is now 11 years old, be reviewed and updated as outlined in Section 8.4 of the existing by-law.

Cost:
ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:
Short-term (0 – 2 yrs)

2.5 Commission on Fire Accreditation International (CFAI)

"When a Fire Department applies a model of risk assessment to help determine their level of emergency services commitment, they have moved from being reactive to being proactive." – quote from CFAI overview information.

In the Fire Service, the NFPA (National Fire Protection Association) standards are considered the benchmark to strive for. Many of these standards have, to a large degree, been adopted by the Office of the Fire Marshal and Emergency Management. The CFAI is considered the organization that has incorporated all national and local standards, which becomes the model for best practices for an organization.

Benefits of Accreditation:

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

- Verification by peers

The CFAI program revolves around 10 categories, which are:

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

All of these categories will be discussed within each related section of this FMP document.

ESCI Update: (2022):

In the latest version of the CFAI model (10th edition), an additional category or program discipline has been added, Health & Safety, which focuses on organizational practices to reduce employee injury and liability. Specifically, Health & Safety – does the department have adequate programs and processes in place that will help meet the goals of eliminating employee injuries and deaths, reducing liability to the organization, and ultimately making the organization more effective and efficient?

Modernization:

The accreditation model is often ignored when there is belief that the achievement of full accreditation status is not a possibility. This belief stems from the amount of organizational change that would be required to become compliant with the accreditation model or the lack of resources necessary to prepare for the evaluation. Some estimates are it takes at least a year of time for a single individual in a full-time capacity to create/compile the information required not including any organizational changes that would be required to meet accreditation.

However, even if the accreditation recognition is not feasible, it is still a strong and nationally recognized model for how to shape a fire service organization. Without it, most fire service leaders just perpetuate what they inherited or create their own. The accreditation model is one that leaders can embrace as full of direction that can improve the integrity of the organization amongst the community and staff.

The initial steps of building an accreditation model organization is to understand why the fire department exists in the first place. This is accomplished through a Community Risk Assessment which is currently in progress.

Recommendation #6:
Accreditation:

ESCI recommends that ECSS consider and pursue full or partial accreditation with Commission On Fire Accreditation International (CFAI).

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe: Long term (5 -10 yrs)

2.6 Stakeholder Surveys

To get a clear understanding of how well EGES is meeting the needs of its staff and the community, surveys were conducted with both the internal staff of the EGES and external stakeholders.

To assist with the completion of the staff surveys, information meetings were held during the months of October and November 2016. The community survey was advertised through local media and was set up on the Department's website (in the form of an electronic survey). Within the community surveys, participants were also offered the opportunity to be part of a focus group meeting. This community stakeholder meeting was held on November 29th at the Town's Council Chambers.

During the months of October and November, meetings were also held with members of Council and with the Town's Administrative Officer (CAO).

Internal Surveys

During the FMP process, feedback was gathered from internal staff, which included firefighters, Administration, Training and Fire Prevention.

Much of the information received from the internal surveys identified the following:

- Most of the staff feel that EGES is doing a good job based on the current level of staff and equipment presently in place
- There is an overall desire/need for more training
- The major challenges for the Fire Department are with regard to succession planning, training, fire prevention and education along with emergency planning
- The top services that they feel are priority to the community are:
    - Firefighting
    - Rescue
    - Medical response
    - Fire prevention and community awareness programs
- In the future, staffing succession planning and retention of the volunteer firefighter component should be reviewed

External Surveys and Stakeholder Meeting Results

Input from the community is vital as it gives the Fire Department an accurate indication of how the public perceives the fire service and suggests areas for improvement from those with first-hand interaction with the Department.

The following input was received:

- Most respondents see the EGES as a dedicated and professional service
- The top three priorities noted by external respondents are:
    - That the Fire Department responds in a timely manner to calls for assistance
    - The presence of the Fire Department within the community in relation to public education and related safety training, and
    - The cost of the fire service
- The top three services noted by external respondents are:
    - Firefighting
    - Medical Response
    - Public Education
- In relation to what is needed over the next 10 years, the top responses were:
    - Possibly more full-time staff to meet the growing demands of the community
    - More public safety education and attendance at community events
    - The ability of the Fire Department to grow with the community needs

Overall, both the internal and external surveys as well as the stakeholder meetings were positive about the services being offered by EGES. The primary focus we heard (both internally and externally) was ensuring that the Fire Department continues to expand as the community grows and that EGES can continue to provide a quality service to the community.

Recommendation(s)

1. It recommended that the Department actively recruit for volunteer/paid-on-call firefighters that work rotating shifts or straight nights to improve daytime response numbers by the volunteer/paid-on-call firefighters who are not available during daytime hours. Another option for consideration is to hire those that may not live in East Gwillimbury but do work in the area and have support from the local employer to occasionally leave work to attend emergency incidents.

Associated Costs *(all costs are approximate)*

- No associated costs

Timelines

- Recommendation #1 – Short-term (1 – 3 years)

ESCI Update: (2022):

As part of the update to the FMP, ESCI offered a survey to the community about their opinions of their fire department. In addition, ESCI conducted interviews with department staff and elected officials with the questions concentrating around the analysis of a possible consolidation with the Georgina Fire and Rescue Services.

ESCI conducted the interviews in late May and early June of 2022 with over 50 stakeholders including department staff. The community survey was open for approximately 2 months ending on July 31, 2022 and over 100 respondents provided input.

Internal Interviews Summary

- Most of the staff value the ability to be a part of the ECSS and serve the community.
- ECSS has a robust public education program and commitment.
- While there was widespread recognition that in the three lines of defense, ECSS prioritizes the first two lines of defense, while operations staff were less certain about the direction regarding the third line of defence.
- While all interviewees were open to the possibility of a consolidation, many were cautious in their support until sufficient justification was provided.

The top priorities expressed were:

1) What impact is there on the philosophy of the organization if a consolidation with Georgina were to take place?
2) As East Gwillimbury continues to grow, what impact will growth have on the fire department's makeup?

External Survey Results

In relation to the three lines of defence, community input was consistent with the previous survey where services ranked most important were:

- Fire Suppression
- Medical response
- Training

While there were a number of suggestions about future direction of the organization, the majority of the suggestions indicated an appreciation for what the department currently does for the community but would like to see quicker response times and continued adaptation to

the community's growth.

Modernization*:*

East Gwillimbury should prepare for not only population growth but a change in population character. In other words, the values of the long-standing East Gwillimbury communities may be subject to change with not only an increasing population but a demographically different population. Constant interaction with the community stakeholders through state-of-the-art communication technologies (younger generation will prefer) will be vital for the department to stay ahead of potential challenges and keep abreast on the values of the community.

The workforce in ECSS is also changing. There is a slow transition to a greater career force in process, but the workplace values of career firefighters can be different than those of paid-on-call firefighters. The fire chief should expect to spend adequate time with a workforce that may want to contribute in different ways to the service than the traditional fire service and are still important to the organization and community.

Recommendation #7:
Communication:

ESCI recommends the fire chief should continue to keep open communication channels with both the community and workforce. When possible, the fire chief should keep all staff up-to-date on strategic objective timetables and implementation progress and involve the workforce in the implementation processes.

Cost:

Cost to be evaluated and contained within the annual operating budget.

Timeframe:

Ongoing

SECTION 3 – Risk Assessment

3.1 Community Risk Assessment

3.2 Simplified Risk Assessment

3.3 Integrated Risk Management Web Tool

Section 3: Risk Assessment

3.1 Community Risk Assessment – Current and Future Needs

When looking at a community risk assessment, it is important to first note that it is Council that sets the level of service within the community. Therefore, it is the Fire Chief's responsibility to inform Council on the risks that exist within the community. From that point, Council can make an educated decision based on the information and recommendations received by the Fire Chief.

The Fire Protection and Prevention Act, 1997, S.O. 1997, c. 4, outlines the responsibilities of a municipality, providing a framework for protecting citizens from fire:

2. (1) Every municipality shall,

(a) Establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention; and

(b) Provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances.

Further, the *Act* provides a description for the methods of providing services; Methods of Providing

Services

(2) In discharging its responsibilities under subsection (1), a municipality shall:

(a) appoint a community fire safety officer or a community fire safety team; or

(b) establish a Fire Department.

The Town of East Gwillimbury has established a Fire Department as outlined in Section 2.2(b) of the *Fire Protection and Prevention Act*, 1997, S.O. 1997, c. 4. The level of service that therefore must be provided is further outlined in Section 2.1(b) of the *Act*. The level of service to be provided is determined by the needs and circumstances of the community and can be derived from conducting a Fire Masterplan for Council.

The 'needs' can be defined by the type of buildings, infrastructure, and demographics of the local area which in turn can be extrapolated into the types of services that would be offered and needed. The 'circumstances' are considered as the ability to afford the level of service to be provided.

Together, the needs and circumstances assist in identifying a level of service for the community. This combination meets the expectations of the public for safety and the affordability of this level provided. East Gwillimbury is currently experiencing significant growth in the community. While the majority of this growth is residential in design, there are commercial and industrial possibilities. This increase impacts the service delivery of the Fire Department where the need for service will rise along with the population.

ESCI Update: (2022):

East Gwillimbury continues to grow and was recently declared the fastest growing community in Canada. It has a potential growth rate of approximately 51% within the next ten years bringing the population from its current 37,000 to 50,100[1]. This kind of population growth may require changes to the fire department and will be driven by a perpetual need to monitor risk proactively.

A proactive approach takes the form of preparation before the need exists or while the need is developing. A reactive approach takes the form of responding once the need is established and experienced. There are pros and cons to each.

In a proactive approach, the fire department adjusts to the needs of the community. The positive for this philosophy is the department continues its mission (to save lives and protect property) while managing the impacts of growth. If the pace growth of the fire service outweighs the pace of the growth of the community, this could lead to emergency services out of alignment with the community with an associated cost. While communities may be willing to accept nominal excesses for short periods of time, extended periods of excessive resources contribute to increased operational costs.

In a reactive approach, while the costs may directly fund an existing need, if there is an unexpected rapid growth, where the emergency services department hasn't grown, there may be consequences in the community in some form of loss.

Modernization:

York Region's identification of East Gwillimbury as an area of growth gives community leaders a strong anchor for creating a proactive management strategy. From the organization's perspective, this should include the anticipation of risk in quantity, quality, and geography. Far from knowing the exact timeframes of progress, emergency services can begin by proactively identifying potential risks, either an increased existing risks or new risks, and creating trigger points for actions.

Recommendation #8:
Develop a Community Risk Assessment (CRA):

As directed by the Office of the Fire Marshal, complete the CRA by July 1, 2024 to replace the existing Simplified Risk Assessment (SRA).

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Short term (0 - 2 yrs)

[1] – 2022 Adopted York Region Official Plan

3.2 Simplified Risk Assessment

As noted in the Ontario Fire Marshal's Public Fire Safety Guideline, PFSG 04-40A-03, "*The simplified risk assessment (SRA) and ensuing fire concern profile will assist in identifying the degree to which these activities are required in accordance with local needs and circumstances. The simplified risk assessment is made up of the following components:*

- *demographic profile*
- *building stock profile*
- *local and provincial fire loss profiles*
- *information analysis and evaluation*
- *priority setting for compliance*
- *implementing solutions*

Conducting a simplified risk assessment is a practical information gathering and analyzing exercise intended to create a community fire profile that will aid in identifying appropriate programs or activities that can be implemented to effectively address the community's fire safety needs."

The SRA is an integral building block in the data gathering process to understand the community that is served by the fire department. As the community continues to change, the document should continue to be updated as the results are only accurate to the time of which the review was conducted. NFPA 1730 Standard on *Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations*, notes that this review should be conducted at a minimum every five (5) years or after significant change. This standard also establishes a process to identify and analyze community fire risks. This standard refers to the process as a Community Risk Assessment. There are seven (7) components of a Community Risk Assessment outlined in NFPA 1730. These components are:

1. Demographics
2. Geographic overview
3. Building stock
4. Fire experience
5. Responses
6. Hazards
7. Economic profile

Current Condition

The Simplified Risk Assessment (SRA) completed by the Fire Department illustrates that there has been significant building stock growth in the community (namely residential, but not exclusively). This growth has impacted the demographic profile and, consequently, the needs and circumstances for

the delivery of services by the Fire Department. As the population and infrastructure grow to meet the needs of the community, the types of calls and related frequency will need to be monitored by the Fire Department to ensure that they are in fact meeting the needs of the community and the internal training and equipment needs of its firefighters to do their jobs in an efficient and effective manner.

In relation to its Fire Prevention and Public Education initiatives, EGES' Community Education and Prevention Branch has ensured that it has a list of all the vulnerable occupancies (care facilities), schools and other special needs facilities that require attention and inspections due to legislated standards.

In 2013, the Town of East Gwillimbury had a Hazard Identification and Risk Assessment (HIRA) completed for them by the consulting firm of MNP LLP, based in Toronto. The HIRA is reviewed annually and updated where applicable in conjunction with the Region.

The findings of this town-wide review listed the following as the top three concerns:

- Severe summer storm – heavy rainfall
- Tornado/ windstorm
- Hazardous materials incident – transportation incident (rail lines)

The first two risks listed by MNP are out of the control of the Fire Department, but this does not mean that they shouldn't prepare for these incidents through training initiatives, identifying equipment needs and joint partnerships with other fire departments. EGES has been very proactive with other regional fire departments ensuring a Mutual Aid agreement is in place. The agreement is designed to allow for a seamless response by each community's fire department in support of each other when EGES' resources are exhausted due to a large-scale incident.

As for the hazardous material incident, EGES has identified what fire department(s) can be called upon to assist with any large-scale hazardous materials incidents. As such, EGES has done what can be accomplished in preparing for such large-scale incidents in a pro-active partnership with its bordering communities and their fire departments.

Future Needs

Understanding the community and its needs allows EGES to be proactive in education and enforcement programs for the community and to all fire department staff. Therefore, when fires occur within the community, the firefighters can be better prepared to cope with the fires and other related emergencies because they are trained, not only in the basics of firefighting but, in the special hazards that are found within the community. These hazards are noted in the SRA/CRA and HIRA conducted by the Town and its Fire Department.

As the community grows, the frequency of, and the need for service will grow. Based on this growth, there will be a future need for additional staff in the Community Education and Prevention, Operations and Training Branches. However, at this time, EGES appears to be managing the present level of call volume with the three fire stations and its compliment of staff.

ESCI Update: (2022):

All municipalities in Ontario have been directed to complete by July 1, 2024 a Community Risk Assessment (CRA) by the Office of the Fire Marshal. The CRA replaces the previous Simplified Risk Assessment (SRA) and identifies risks within the community and provides a foundation for operations.

Developing the CRA will include the following 9 profiles based on the O. Reg. 378/18: Community Risk Assessments (ontario.ca):

1) Geographic
2) Building stock
3) Critical infrastructure
4) Demographic
5) Hazard
6) Public safety
7) Community services
8) Economic
9) Past loss and event history

A CRA is a process of identifying, analyzing, evaluating and prioritizing risks to public safety to inform decisions about the provision of fire protection services.

A HIRA is accomplished in parallel with the CRA and is intended to encompass the larger scale incidents that would require regional or provincial-level responses over an extended period of time.

Recommendation #9:
Maintain a CRA:

Maintain a CRA framework to be used as a tool for the Town of East Gwillimbury to support the strategies of the organization, determine risk mitigation requirements, and provide justification during the annual budget process.

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Ongoing

3.3 Integrated Risk Management Web Tool

The Ontario Fire Marshal's Communiqué 2014-12 introduced the Integrated Risk Management Tool to the Fire Service. The document notes:

> *"The IRM Web Tool was developed as part of a commitment made by the OFMEM to the Ontario Association of Fire Chiefs (OAFC) and other stakeholders. The IRM Web Tool can be used by all Ontario's municipalities and Fire Departments to determine building fire risks in their respective communities by taking into account building characteristics (building factors) and the three lines of defence against fire (Three Lines of Defence):*
>
> *Line one: Public Fire safety education*
> *Line two: Fire safety standards and enforcement*
> *Line three: Emergency response"*

The Integrated Risk Management Web Tool is built around the three lines of defence and intended for municipal and fire service decision-makers. The tool was designed to assist municipalities in fulfilling the responsibilities prescribed in Section 2 of the *Fire Protection and Prevention Act, 1997* (FPPA).

The concept of the IRM is a "building by building" assessment, but its goal is to go beyond simply taking stock of buildings within the community; it was intended to be a holistic approach that is meant to combine all of the fire department's efforts in relation to:

- Fire prevention and education initiatives, which includes updated community reviews through the use of the OFMEM Simplified Risk Assessment
- Fire station locations and ability to respond in an efficient and effective manner
- Identification of hazardous situations/locations within the community
- Training and equipping of the firefighters to execute their duties in a safe and efficient manner

The IRM approach is a combination of all facets of the fire service that is meant to combine a review of building stock, fire safety and prevention related issues to be addressed, ability to effectively and efficiently respond to emergencies and how well equipped and trained the firefighters are to deal with emergencies within the community. It should be realized that conducting a review of every building within the Town of East Gwillimbury may not be practical. Utilizing NFPA 1730 definitions of risk categories may guide Council in deciding the focus and service level within the community. Council should decide (with input from the Fire Chief) what the acceptable risk is to manage in the community based on the needs of the community and balanced with the circumstances to deliver the services.

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

High-Risk Occupancy – an occupancy that has a history of a high frequency of fires, high potential for loss of life or economic loss, or that has a low or moderate history of fire or loss of life, but the occupants have a high dependency in the built-in fire protection features or staff to assist in evacuation during a fire or other emergency.

Examples: apartment buildings, hotels, dormitories, lodging and rooming, assembly, child care, detention, education, and health care

Moderate-Risk Occupancy – an occupancy that has a history of moderate frequency of fires or a moderate potential for loss of life or economic loss

Examples: ambulatory health care, and industrial

Low-Risk – an occupancy that has a history of low frequency of fires and minimal potential for loss of life or economic loss

Examples: storage, mercantile, and business

Current Condition

Based on information received from the Community Education and Prevention Branch, it would appear that the Branch has identified the number and location of vulnerable occupancies (care facilities) within the community, along with the number and type of schools. Since these facilities have unique educational and inspection needs, this type of information is critical and the Department should be commended on keeping such accurate records.

Along with the above noted information, the Department also needs to keep track of the following building stock within the Town of East Gwillimbury to ensure that they are meeting the inspection recommendations noted in the Fire Underwriters Survey as noted on the following page.

- Group A (Assembly)
- Group B (Institutional)
- Group C (Residential)
- Group D & E (Commercial)
- Group F (Industrial)
- Not Classified in OBC (e.g. trailer parks)

Utilizing the IRM tool, in conjunction with the guidance from NFPA 1730, will provide an overall picture of the resources, time, and tools required to keep the fire risks in the community to a manageable level, as defined by Council. It is important to note the number of buildings within East

Gwillimbury and the continual growth that is expected. This current and future building stock puts pressure on the Fire Prevention Officers to accomplish an adequate amount of inspections to ensure fire code compliance within the community. To determine the current staffing needs, NFPA 1730 outlines a five-step process within Appendix C of the standard. This sample staffing exercise is not part of the requirements of the standard, but forms a guide for informational purposes. It is important to restate that it is Council that sets the level of service within the community. This level of service must be based off the local needs and circumstances.

Information received supports that the Community Education and Prevention Branch (CEPB) has done a positive job in ensuring that ongoing inspections and education programs are being conducted (when resources allow). Fire Prevention Officers are duty-bound to conduct inspections upon request or complaint in accordance with the *Fire Prevention and Protection Act*. The FPD's focus is to go beyond what is required by legislation and to be more proactive within the community in relation to public education. They appear to be doing a commendable job in doing so, based on present staffing and resources.

However, it is recommended that the FPD review its inspection program to identify levels of desired frequency in relation to the inspections noted in the FUS Chart (noted below). The Fire Underwriters Survey supports and recommends that a level of frequency be identified by the Fire Department in its quest towards ensuring a fire safe community. The following "FUS Suggested Frequency Chart" should be utilized as an identified guideline for consideration by EGES.

FUS Suggested Frequency Chart:

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

Future Needs

The utilization of the IRM tool will provide an understanding of a fire risk building-by-building that can be extrapolated to show the risk in given areas. Upon updating the Simplified Risk Assessment, the IRM tool could be used to begin the process of measuring the community for fire risk. A thorough risk assessment can also avoid invalid comparisons between your fire department and others. A

municipality with a similar population may have very different fire risks, and therefore very different fire protection needs. A thorough risk assessment will ensure that such comparisons are valid. By providing a valid basis for comparison, a sufficient risk assessment can also provide confidence that innovations introduced elsewhere can be successfully applied in your municipality.

ESCI Update: (2022):

The Integrated Risk Management tool (IRM) is no longer available. This has been replaced by the CRA. Most fire department management software packages now include this type of occupancy tracking module. ECSS uses Firehouse software to track their inspections. In addition, ECSS uses Survey123 to conduct home visits annually to validate the presence of working smoke and carbon monoxide alarms.

Modernization:

With respect to the 2nd line of defence, inspections ensure owners and occupancies are educated and in compliance with the fire code. Since ECSS places high value on the first two lines of defence, conducting regular periodic inspections should be a priority of the organization. Currently, ECSS has a proactive compliance inspection schedule for all occupancy types within the municipality.

The next practical step to enhance the application of the data collection would be to make the data available to responders. Some fire departments refer to this as pre-planning. Suppression crews perform tactical planning on properties using various type of fire and hazard possibilities, developing strategies ahead of time, practicing them ahead of an actual emergency. Sometimes this is at an actual location and other times it is classroom. Either way, knowledge of building construction, layout, and content contributes to tactic selection and execution. Fire departments are now taking the gathered data, including floor plans if they are available or have internal graphic expertise, and making them available to suppression forces so that while responding to a call, personnel can educate themselves on the building they are responding to and be ready to execute any pre-decided tactics. This makes an emergency safer, managed more efficiently and consequently greatly reduces loss potential.

In order to accomplish this, all responding units require laptops or an equivalent technology with access to the database collection which can be done real-time through a wireless connection or through data that is periodically loaded and updated on each computer.

Recommendation #10:
Technology:

ESCI recommends that ECSS should continue to equip and upgrade applicable apparatus with adequate technology and data access to engage in preplanning and on scene operations.

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Ongoing

3.3.1 Home Fire Sprinklers

The NFPA, along with the Ontario Association of Fire Chiefs, are strong supporters of home sprinkler systems as a way to reduce the risk to life and property from fire.

In a recent NFPA on-line article, it was explained that because fire sprinklers react so quickly, they can dramatically reduce the heat, flames, and smoke produced in a fire. Properly installed and maintained fire sprinklers help save lives.

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

Facts about home fire sprinklers

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

Automatic sprinklers are highly effective and reliable elements of total system designs for fire protection in buildings. According to an American Housing Survey, 4.6% of occupied homes (including multi-unit) had sprinklers in 2009, up from 3.9% in 2007, and 18.5% of occupied homes built in the previous four years.

Source: *U.S. Experience with Sprinklers*

- 85% of all U.S. fire deaths occur in the home
- Home fire sprinklers can control and may even extinguish a fire in less time than it would take the fire department to arrive on the scene
- Only the sprinkler closest to the fire will activate, spraying water directly on the fire. In 84% of home fires where the sprinklers operate, just one sprinkler initiates
- If you have a fire in your home, the risk of dying is cut by about one-third when smoke alarms are present (or about half if the smoke alarms are working), while automatic fire sprinkler systems cut the risk of dying by about 80%
- In a home with sprinklers, the average property loss per fire is cut by about 70% (compared to fires where sprinklers are not present)
- The cost of installing home fire sprinklers averages $1.35 per sprinklered square foot

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

By working with the developers, the public and other fire safety organizations in promoting the installation of home sprinkler systems, EGES would be demonstrating a pro-active approach in relation to educating the public on another viable option for home owners to help reduce the risk from fire. During EMT's review and meetings, it was noted that the Fire Chief is in full support of such initiatives and as such promotes residential sprinkler systems where ever possible. This practice of promotion sprinkler systems should continue to demonstrate the Department's commitment to fire safety in the community.

Recommendation(s)

2. It is recommended that upon completion of the SRA/CRA and IRM, the Fire Chief provides Council with a draft policy for review and passage that outlines a fire inspection program to address identified needs and expected outcomes of the program. This program should outline the building types and the frequency of inspections.

3. It is recommended that the Fire Department meet with appropriate local community groups to form a partnership in relation to organizing fire safety and public education events that can be tailored to the unique needs and challenges within the community.
    - In the community stakeholder meeting held on November 29, 2016, the idea of greater community utilization was noted, along with more use of electronic media for public education awareness.

Associated Costs *(all costs are approximate)*

- No cost associated with the initial development of these recommendations (staff time only), but once approved, then new/updated programs that may evolve from the recommendations could incur some associated costs.

Timelines

- Recommendations 2 & 3: short-term (1 – 3 years)

ESCI UPDATE: (2022):

Over the past 5 years, there hasn't been any uptake from the residential home builders, related to the sprinkler system installation.

Update to the NFPA US Experience with Sprinklers Report – Oct 2021:

* 5% of home contain home sprinklers

In sprinklered properties

- Civilian fatality rate 88% lower
- Civilian Injury rate 28% lower
- Property loss 62% lower
- Fire spread confined to room of origin – 97%
- Fire controlled – 96%
- 89% fires managed by 1 sprinkler, 99.5% by 5 or fewer

With sprinklered residential fires,

- 1% of fatalities
- 5% of injuries
- 3% of total property loss

Where smoke alarms are present, the statistics are:

- 28 percent lower when battery-powered smoke alarms were present, but AES protection was not
- 46 percent lower when smoke alarms with any power source were present but AES protection was not
- 66 percent lower when hardwired smoke alarms were present but AES protection was not
- 89 percent lower when sprinklers and hardwired smoke alarms were present

Residential sprinkler systems are a point of debate between the fire service and the building construction industry. The National Fire Sprinkler Association estimates the average cost of home sprinkler installation in new construction is \$1.35 USD/ft^2 or \$3,375 for a 2,500 ft^2 home. Other sources report costs lower and higher depending on the state of the home and the sprinkler configuration. The building industry projects higher costs of such nature that it can affect home-purchasing ability.

While the value comparison is sometimes like comparing apples and oranges, i.e. risk of less certain fire/death to the housing costs, a reasonable middle-of-the-road solution is for local communities to mandate with new single-family residential development, the offering of residential sprinkler systems complete with statistical supports and costs. The fire department should validate (or provide) the statistical support and costs for sprinkler systems with input from the builder on necessary costs.

A second option is to move away from the all/nothing concept of home sprinkler protection by having legislation that allows partial home sprinkler installation in those areas that are identified as having the highest potential of fires starting, i.e. the kitchen and furnace area.

ECSS sees the benefit in residential sprinkler systems as a holistic approach to fire protection however, the emphasis should always be on early detection through the use of smoke alarms. Residential sprinkler systems may lead to:

1) The reduction of life loss and injuries
2) Reduction of property loss
3) Reduced risk for fire suppression operations

Recommendation #11:
Residential Sprinklers:

ESCI recommends the fire chief and the fire prevention staff continue to work with all stakeholders to promote increased use of residential sprinklers.

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Long term (5 - 10 yrs)

SECTION 4 – Department Staffing & Related Programs

4.1 Administration Division
4.2 Fire Prevention and Public Education
4.3 Training & Education Division
4.4 Suppression/Operations – Full-time & Volunteer

Section 4: Department Staffing

Within the scope of work noted in the original Request for Proposal document, staffing needs was identified as a priority in which EMT was to review the capabilities of existing staffing and identify future needs for each of the following divisions: Suppression, Training, Prevention and Administration.

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

- Is there a proper level of senior staff to manage the Department and its divisions?
- Is there adequate administrative support staff to assist with such things as records management and addressing day-to-day operations of the Department?
- Is there a need for other support staff in relation to vehicle and facility maintenance?
- When does a Fire Department switch to a full-time fire service, no longer dependent on response support from volunteer/paid-on-call firefighters?

This section will discuss the following branches:

- Administration Community Education and Prevention
- Training
- Operations

Fire Department Organizational Overview

The Fire Chief of EGES reports to the Town's Chief Administrative Officer (CAO) in a council-manager style of government. The Fire Chief serves as the head of the Fire Department and is supported by:

- Deputy Chief
- One full-time Administrative Assistant
- A Training Officer
- Community Education and Prevention Branch consisting of a Fire Prevention Officer, a Fire Inspector and a Public Educator

As previously noted, the EGES organizational chart identifies a present strength of 16 full-time firefighters, an approved roster of 81 volunteer/paid-on-call firefighters, and seven administrative/headquarters staff (which includes the Fire Chief, Deputy Fire Chief, Administrative Assistant, Community Education and Prevention Branch, and Training).

To make an informed decision on staffing requirements, consideration is dependent on the following points:

- Does the Fire Department have an approved response criterion as a baseline?
    - Has Council given direction to the Fire Chief (based on his recommendations) on expected response times that are to be met by the Fire Department?
    - If so, is the Department meeting this response criterion on a consistent basis or is it struggling to meet the response times and perhaps falling behind?
- Does the Department have issues/concerns with getting enough volunteer/paid-on-call firefighters to respond during daytime hours (or other times) on a consistent basis to ensure a viable level or response (this is a key question for the Holland Landing and Mount Albert fire stations as they are dependent on volunteers for response to this area)?
    - Even though the Queensville Station can send a full-time crew to the other areas when available, what are the response times and volunteer compliment when Queensville is not able to respond?
- What local and national standards and guidelines exist to help direct the Fire Department in its decisions relating to station location and staffing models - specifically, NFPA 1710 and 1720 along with reference to the CFAI "industry best practices" recommendations?
- What growth or decrease in population and industry is occurring that may precipitate more or less fire stations and staffing?

For fire departments in Ontario, there are three main standards and industry best practices that are considered. First, there is the Public Safety Guidelines that are created and distributed by the Office of the Fire Marshal and Emergency Management. These Guidelines advise fire services in relation to all aspects of delivering Fire Prevention, Fire Suppression and fire station location programs.

Second, there are industry best practices in the form of the National Fire Protection Association's 1201, 1710, 1720 and 1730 standards, which offer guidance in relation to:

- 1201 – Standard for Providing Fire and Emergency Services to the Public
- 1710 – Standard for Career Fire Departments
- 1720 – Standard for Volunteer Fire Departments
- 1730 – Standard on Fire Prevention, Code Enforcement and Public Education.

And third, there is the Fire Underwriters Survey. This FMP project enlisted the services of the FUS group to conduct a review and make recommendations based on their own proprietary formulas and expected industry criteria for community fire protection.

4.1 National Fire Protection Association Standards

There a numerous NFPA standards in relation to fire service expectations and fire safety, in general. However, this section of the FMP will focus on sections 1201, 1710, 1720 and 1730.

NFPA 1201 – Standard for Providing Fire and Emergency Services to the Public

Based on this standard, the Fire and Emergency Services Organization (FESO) shall provide customer service-oriented programs and procedures to accomplish the following:

1. Prevent fire, injuries and deaths from emergencies and disasters
2. Mitigate fire, injuries, deaths, property damage, and environmental damage from emergencies and disasters
3. Recover from fires, emergencies and disasters
4. Protect critical infrastructure
5. Sustain economic viability
6. Protect cultural resources

NFPA 1710 and 1720 – Career and Volunteer Fire Departments

Before discussing the success that EGES is having in relation to meeting one or both of these standards, it should be noted that when a fire department has a level of volunteer emergency personnel comprising 85 percent or greater, it is viewed as a Volunteer Fire Department. Presently EGES is at the 85 percent mark so its focus should be in relation to the 1720 Standard, but if more full-time firefighter emergency services personnel are hired, then greater focus on the 1710 Career Standard would need to be considered in relation to response time benchmarks.

As for the 1710 and 1720 standards:

- NFPA 1710 in relation to the career firefighter component, chapter 4 notes, the expectation is that the crew is able to:
    - turnout (respond) from the station within 80 seconds, 90 percent of the time,
    - with a travel time of 240 seconds (4 minutes) for the first unit to arrive on scene, 90 percent of the time in the primary response area,
    - and a travel time of 480 seconds (8 minutes) for the remainder of the response contingent, 90 percent of the time.

- NFPA 1720 for volunteer fire departments chapter 4.3.1 notes the following for the deployment of volunteer firefighters:
    - *"the Fire Department shall identify minimum staffing requirements to ensure that a sufficient number of members are available to operate safely and effectively.*
        - *In Urban areas (population greater than 1000 per square mile), there should be a minimum response of **15 staff within 9 minutes**, 80 percent of the time*
        - *In Suburban areas (population of 500 – 1000 per square mile), there should be a minimum response of **10 staff within 10 minutes,** 80 percent of the time*
        - *In Rural areas (population of less than 500 per square mile), there should be a minimum response of **6 staff within 14 minutes,** 80 percent of the time."*

To accomplish this, as noted in the NFPA Standards, the fire department should endeavour to meet the stated minimum response standards based on responding to a 2,000-sq. ft. single family dwelling. The dwelling (noted in the Standard) does not have a basement or other exposures (buildings close enough to each other to create a greater possibility for fire spread). However, most homes in East Gwillimbury have basements and are built close enough to each other to create that "exposure" for potential fire spread, which must be considered by the Fire Department in its response efforts.

Presently, EGES is diligently working at meeting the NFPA 1720 standard in relation to population verses staff/response times. Based on response data review and discussions with the Fire Chief, EGES is demonstrating a strong level of success in meeting the response criteria. It should also be noted that with its compliment of dedicated full-time and volunteer staff, they are also doing an admirable job at meeting the needs and expectations of the community, as noted by the input received through the community surveys and stakeholder meeting.

A question that is often posed on composite fire departments is that of when the department should consider moving to a solely career model, eliminating the reliance on volunteer/paid-on-call firefighters. There is no standard that specifically identifies the tipping point for this move; it is based on the level of service set by the community's Council, coupled with regular reports by the Fire Chief on how the Department is meeting service level expectations.

There are many factors including the number of volunteer/paid-on-call firefighters arriving when paged out, how quickly they respond to the page, what the turnout is based on, the time of the day and day of the week (e.g. volunteer availability during day shift vs. night shift), etc.

The volunteer/paid-on-call firefighters must be provided with the same minimum training certifications and equipment. Recruitment and retention of volunteers is becoming more of a challenge with the increasing training that they must commit to on an annual basis and high staff

turnover with many younger volunteer/paid-on-call firefighters actively looking for full-time firefighting careers.

Some composite fire departments have identified where to focus additional career firefighters by identifying call volume, growth of the community, and, more specifically, the times of the day that are the most challenging for volunteer/paid-on-call firefighter responses. As with most fire departments, the daytime hours from Monday to Friday are the greatest challenge for the volunteer/paid-on-call response due to fact that many of them are either at work, school or taking care of family during the daytime hours. As such, some departments initially focus a full-time component that works Monday to Friday. Currently, EGES has 24/7 coverage at its Queensville Station.

Another indicator for making this decision is tracking the number of firefighters that arrive at the fire station to respond. If the standard set by the Department is that three or more volunteer/paid-on-call firefighters must arrive at the station before the fire truck can respond, then this should be monitored along with how many times a station is not able to muster up the needed personnel to compile an effective response force. This type of monitoring would be more suitable to the Mount Albert and Holland Landing fire stations as they are reliant on the volunteer/paid-on-call firefighters.

In summary, going to an entirely full-time service is a large cost to the community and this is why many communities have accomplished this in stages to meet the present needs. East Gwillimbury's model of a composite fire department is a very cost-effective form of fire protection for a community of its size.

4.2 Administration Branch

The present Administrative Branch consists of the Fire Chief, the Deputy Fire Chief and one full-time Administrative Assistant.

4.2.1 Commission on Fire Accreditation International

The CFAI Accreditation program has a specific section that evaluates the administration component of a Fire Department. In this section, the following points are noted:

Category 9C: Administrative Support and Office Systems

Administrative support services and general office systems are in place with adequate staff to efficiently and effectively conduct and manage the agency's administrative functions, such as organizational planning and assessment, resource coordination, data analysis/research, records keeping, reporting, business communications, public interaction, and purchasing.

With all this in mind, it was noted during the creation of the FMP that there is a total of 3 full-time administrative staff. Due to the size of EGES, it was identified that the administrative staff are challenged to meet the daily demands of the Department, along with ensuring that all Departmental data and documents are kept up to date. As such, it is recommended that for the immediate future, consideration be given to the hiring of a part-time Administrative Assistant to cover for times when the present full-time Administrative Assistant is out of the office, whether that be due to illness, vacation or other planned absences.

4.3 Fire Prevention and Public Education

Fire prevention and public education are number one in relation to the three lines of defence as noted by the Office of the Fire Marshal and Emergency Management. As such, fire prevention and public education should be considered a priority.

As already noted in this document, the *Fire Protection and Prevention Act* (FPPA) notes in section 2.2(a) that a community must supply fire safety education and fire prevention programs to its community through the appointment of a public safety officer or a community fire safety team OR (b) establish a fire department.

NFPA 1730, which is the standard relating to Fire Prevention and Public Education, notes in section 4.2.2 that the Fire Prevention Organization shall have an organizational structure of the size and complexity required to accomplish its mission. To accomplish this, NFPA 1730 offers a formula for the head of fire prevention to utilize.

4.3.1 Determination of Current Staffing Requirements

To determine the current staffing needs, NFPA 1730 outlines a five-step process within Annex "C" of the standards. This sample staffing exercise is not part of the requirements of the standard, but forms a guide for informational purposes. It is important to restate that it is Council that sets the level of service within the community. This level of service must be based off the local needs and circumstances.

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

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

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

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

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

Step 2: Time Demand

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

- Local nuances
- Resources that affect personnel needs

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

Step 3: Required Personnel Hours

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

- Development/preparation
- Service
- Evaluation
- Commute
- Prioritization

Step 4: Personnel Availability and Adjustment Factor

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

- Holiday
- Jury duty
- Military leave
- Annual leave/vacation
- Training

- Sick leave
- Fatigue/delays/other

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

Step 5: Calculate Total Personnel Required

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

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

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

To assist in this process, the Community Education and Prevention Branch should more closely track the actual time spent on each of the Fire Prevention Office activities (ranging from site plan reviews, routine inspections, licensing, complaints, and requests, to name a few). Further, reporting should include identifying the number of public education events including the numbers of adults and children reached. By identifying the time spent on each project and collating this into approximate times, the CEPB can then use those hours spent as a baseline figure in applying future initiatives.

The FUS group is very supportive of public education as a first line of fire safety defence within a community and support the concept of one Fire Prevention Officer per 15,000 to 20,000 population. Based on this formula, EGES is presently well equipped for fire prevention staffing, however based on anticipated growth additional FPO/FPI staff will be required within the next 10 years.

Further to what has already been noted by the NFPA and the FUS, the CFAI outlines the following in relation to fire prevention and public education:

- A public education program is in place and directed toward reducing specific risks in a manner consistent with the agency's mission and as identified within the community risk assessment

and standards of cover. The agency should conduct a thorough risk-analysis as part of activities in Category 2 to determine the need for specific public education programs.

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

EGES has acknowledged that it is working towards this endeavour. As such, it should continue to enhance the training and certification of its Fire Officers in the areas of fire prevention and public education trained and certified to at least:

- NFPA 1031 – Fire Inspector I, and
- NFPA 1035 – Fire and Life Safety Educator I

ESCI Update: (2022):

Since the last update, the following is the latest staffing list.

- One Deputy Chief
- One Assistant Deputy Chief (New)
- One full-time Administrative Assistant
- One Education and Development Officer (Training)
- Community Education and Prevention Branch consisting of
  - One Fire Prevention Officer
  - Two Fire Inspectors (One new)
  - One Public Educator

In addition, full-time suppression staffing increased from sixteen to eighteen while the number of paid-on-call personnel has remained the same at 80.

ECSS is a composite fire department as defined by the NFPA standards. When career staffing makes up eighty-five percent of the total workforce, this will be considered a career department. Currently, only 32 out of 441 (7%) of Ontario municipalities have entirely career fire service. With this new definition, elements of the NFPA 1710 standard can be considered as viable performance standards.

Composite fire departments can adopt two approaches to performance standards. The first is to have a single standard that takes into consideration that part of the firefighting force (paid-on-call)

will be responding within eight to ten minutes.

The second approach is to have a performance standard that applies to the career portion of the department only and is separate from the paid-on-call portion of the department.

An example here would be that turnout times for career staff must be within ninety seconds of the dispatched call while turnout times for the paid-on-call staff could be six to eight minutes of being dispatch.

A challenge that often occurs is that capabilities become the exclusive driver of response model selection rather than multiple drivers that include risk. In other words, rather than consider a response model change, it can be easier to reduce performance standards to meet the current capabilities. Alternatively, you can adjust your current capabilities to meet performance standards. Example: redeploy current staff to a higher call volume area.

The delivery of fire and emergency services is pressured by economic, political, social, technological, and legislative impacts. Responding to those demands includes a modernized approach to training that aligns with established performance standards and the organization's service delivery.

Recommendation #12:
Staffing:

ESCI recommends that ECSS monitors staffing levels and take a modernized approach to training that includes advanced adult educational principles, course design and development, and oversight of the varied technical skills and abilities required to meet identified performance standards as approved by Council.

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Ongoing

4.4 Training and Education Branch

A fire service is only capable of providing effective levels of protection to its community if it is properly trained (and equipped) to deliver these services. Firefighters must be prepared to apply a diverse and demanding set of skills to meet the needs of a modern fire service. Whether assigned to Administration, Community Education and Prevention or Operations, firefighters must have the knowledge and skills necessary to provide reliable fire protection.

EGES has one full-time Training Officer who is responsible for identifying the training needs of the suppression staff based on industry requirements. The Training Officer is responsible for planning and tracking the training of both full-time and volunteer/paid-on-call firefighters.

The Training Officer is very active in relation to ensuring that all required training programs are being addressed to the best of the Department's ability. However, it was found that the Department does lack a proper training facility to conduct regular hands-on programs such as live fire training and other specialized programs that require more training props outside of those available at the fire stations.

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

- **Purpose.** The Fire & Emergency Services Organization shall have training and education programs and policies to ensure that personnel are trained and that competency is maintained to effectively, efficiently, and safely execute all responsibilities.

Presently, the Training Officer is aware of the program needs and facility requirements and has indicated that he is tracking much of this. However, to verify in a more formal manner that the Training Division is meeting the related NFPA program recommendations, the Training Officer should identify:

- What training programs are required in relation to the services that EGES is providing
- The number of hours that are required to meet each of those training needs
- Resources required to accomplish this training
- Joint partnerships with bordering fire departments and private organizations that can be entered into to achieve the training requirements identified by the Training Officer, and
- Should continue to enhance the annual and multi-year program development, with noted goals and expectations, which are measured and reported in relation to completion success rate at the end of each year

4.4.1 Commission on Fire Accreditation International

The CFAI Accreditation program has a specific section that evaluates the training component of a fire department. In this section, the following points are noted:

- Category VIII: Training and Competency
    - *Training and educational resource programs express the philosophy of the organization they serve and are central to its mission. Learning resources should include a library; other collections of materials that support teaching and learning; instructional methodologies and technologies; support services; distribution and maintenance systems for equipment and materials; instructional information systems, such as computers and software, telecommunications, other audio-visual media, and facilities to utilize such equipment and services. If the agency does not have these resources available internally, external resources are identified and the agency has a plan in place to ensure compliance with training and education requirements.*

Based on EMT's review, it is recommended that EGES continue to search out opportunities to conduct joint training programs with other N4 departments by securing/scheduling neighboring training facilities. It is also recommended that EGES explore the opportunity to build a training facility within the N4 capture area, which could be a cost-effective measure for all the N4 departments. This training facility could start off with simply securing land, which is located within a central area that can be easily accessed by all four fire departments. Once that land is secured, then training pads, structures and more can be built as time and finances allow.

In the meantime, as previously noted, all four fire departments should continue to investigate opportunities to conduct more collaborative training programs.

4.5 Recruitment and Retention of Volunteer/Paid-on-call Firefighters

East Gwillimbury Emergency Services, as with many other fire departments, faces challenges when it comes to retention of its volunteer/paid-on-call firefighters. This is not a reflection of the fire department, but simply a reflection of the need for many of these firefighters to move to other communities for work, educational or even family needs. This, however, does put a strain on the department in the areas of recruitment, training and staffing of the fire stations.

The Office of the Fire Marshal and Emergency Management has put out a document on recruitment and retention in an effort to offer some criteria and/or guidelines that departments can utilize. Refer to Appendix "D" for the document.

Some of these points relate to enhancing training and special projects for the staff to become more involved in, such as:

- Long service awards in the form of remuneration or a stipend
- Education assistance programs to support them in their professional development
- Increased training opportunities

All of these concepts are great, but have limited effect if the community is not offering the desired employment, education or housing needs of the firefighters.

Recommendation(s)

4. It is recommended that to verify that the Training and Education Branch is meeting related NFPA (and other) training program recommendations, the Training Officer should identify:
    - What training programs are required in relation to the services that EGES is providing
    - The number of hours that are required to meet each of those training needs
    - Resources required to accomplish this training
    - Joint partnerships with bordering fire departments and private organizations that can be entered into to achieve the training requirements identified by the Training Officer, and
    - Should continue to enhance the annual and multi-year program development, with noted goals and expectations, which are measured and reported in relation to completion and success rate at the end of each year

5. EGES should continue to search out opportunities to conduct joint training programs with other N4 departments by securing/scheduling neighboring training facilities whenever possible.

6. It is recommended that EGES explore partnership opportunities to build a training facility within the N4 capture area, which could be a cost-effective measure for all the N4 departments. This training facility could start off with simply securing land, which is located within a somewhat central area and can be easily accessed by all four fire departments. Once that land is secured, then training pads, structures and more can be built as time and finances allow.
    - Another option available is to inventory present facilities and what opportunities these offer for joint training programs, whether that be for present training needs and/or for recruit firefighter training.

7. It is recommended that continued enhancement of the full-time Fire Officer resources be incorporated into an annual fire prevention program on a more formal basis. To accomplish this, all full-time officers should be trained and certified to at least:

   - NFPA 1031 – Fire Inspector I, and
   - NFPA 1035 – Fire and Life Safety Educator I

   By having all full-time officers trained to the noted levels, EGES will have a greater number of resources to draw upon in its public fire safety education and inspection programs.

8. To prepare for future staffing retirements and/or promotions, succession planning for Community Education and Prevention Branch and Training Branch personnel should be addressed to ensure trained personnel are ready to take over when the existing personnel retire.

9. The Fire Chief should investigate opportunities to promote retention of the volunteer/paid-on-call firefighters as noted in the OFMEM document. The Fire Chief should continually recruit for volunteer/paid-on-call firefighters in areas that are presently understaffed or have issues with response numbers to calls.

10. The Department should complete certification for staff for each position (that requires or recommends certification) and ensure that certifications are maintained.

Associated Costs *(all costs are approximate)*

- Recommendation # 4: No costs for the training time assessment
- Recommendation # 5: No costs if a mutual resource sharing agreement is reached
- Recommendation # 6: No costs to develop the relationships – costs of the training centre to be determined at the time
- Recommendation # 7: Minimal costs by providing the training internally
- Recommendation # 8: Costs of courses / training to ensure staff are prepared for the succession plan – no costs at this time
- Recommendation # 9: No identified costs at this time for the retention of volunteer/paid-on-call firefighters. Depending on recommendations made by the Fire Chief, costs may be incurred.
- Recommendation # 10: costs of courses / training to ensure certifications are met will be determined by the number of firefighters requiring training

Timelines

- Recommendation # 4-9: short-term (1 – 3 years)
- Recommendation # 10: mid-term (4 – 6 years)

ESCI Update: (2022):

Questions identified in the prior FMP are still relevant and are good questions to be reviewed annually. They are:

- Is there a proper level of senior staff to manage the Department and its divisions?
- Is there adequate administrative support staff to assist with such things as records management and addressing day-to-day operations of the Department?
- Is there a need for other support staff in relation to vehicle and facility maintenance?

While the previous report directly asks the question about the adequacy of all staff, one additional question should be added, "Do all staff have the proper training and qualifications required and is there an adequate level of staffing to manage the three lines of defence?" This will ensure the safety of residents and staff within the level of service determined by Council and related funding. ECSS uses performance standards to determine staffing requirements. When the Council decides a certain performance level for the community, the fire department determines the appropriate staffing levels and required qualifications to support that level of service. The Office of the Fire Marshal published, on July 1, 2022, the Mandatory Certification Information Package for Ontario Fire Services. The document provides the minimum baseline certification requirements for all fire service staff.

Recommendation #13:
Certification and development:

ESCI recommends that ECSS should continue to support and develop all staff to ensure service levels are met and adequate succession planning is considered. ECSS should also ensure that all staff complete and maintain relevant certifications.

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Ongoing

SECTION 5 – Fire Suppression/Dispatching

5.1 Fire Suppression/Emergency Response

5.2 Dispatching Services

Section 5: Fire Suppression/Dispatching

5.1 Fire Suppression/Emergency Response

National Fire Protection Association (1710 and 1720)

To provide the fire department clearer focus on what the ultimate goals for emergency response criteria are, the National Fire Protection Association (NFPA) suggests that response times should be used as a primary performance measure in fire departments.

When considering the response times and related needs for a community, the fire response curve (FIGURE 3) presents the reader with a general understanding of how fire can grow within a furnished residential structure over a short period of time.

Depending on several other factors, the rate of growth can be affected in many different ways, either increasing the burn rate or suppressing it through fire control measures within the structure.

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

- The distance between the fire department and response location
- The layout of the community
- Impediments such as weather, construction, traffic jams, lack of direct routes (rural roads)
- Notification time
- Assembly time of the firefighters, both at the fire station and at the scene of the incident
    - Assembly time includes dispatch time, turnout time to the fire station and response to the scene. It should be noted that assembly time can vary greatly due to weather and road conditions, along with the time of day as many firefighters are at their full-time jobs and cannot respond to calls during work hours.

As noted in the following fire propagation diagram (or any other related diagram or fire spread data), the need for initiating fire suppression activities as soon as possible is critical.

It must also be noted that EGES responds to more than just fires. For example, motor vehicle collisions can create a medical or fire emergency that needs to be dealt as soon as possible. Hence the reason to be as efficient and effective as possible in responding to calls for assistance.

FIGURE 4: Fire Response/Propagation Curve

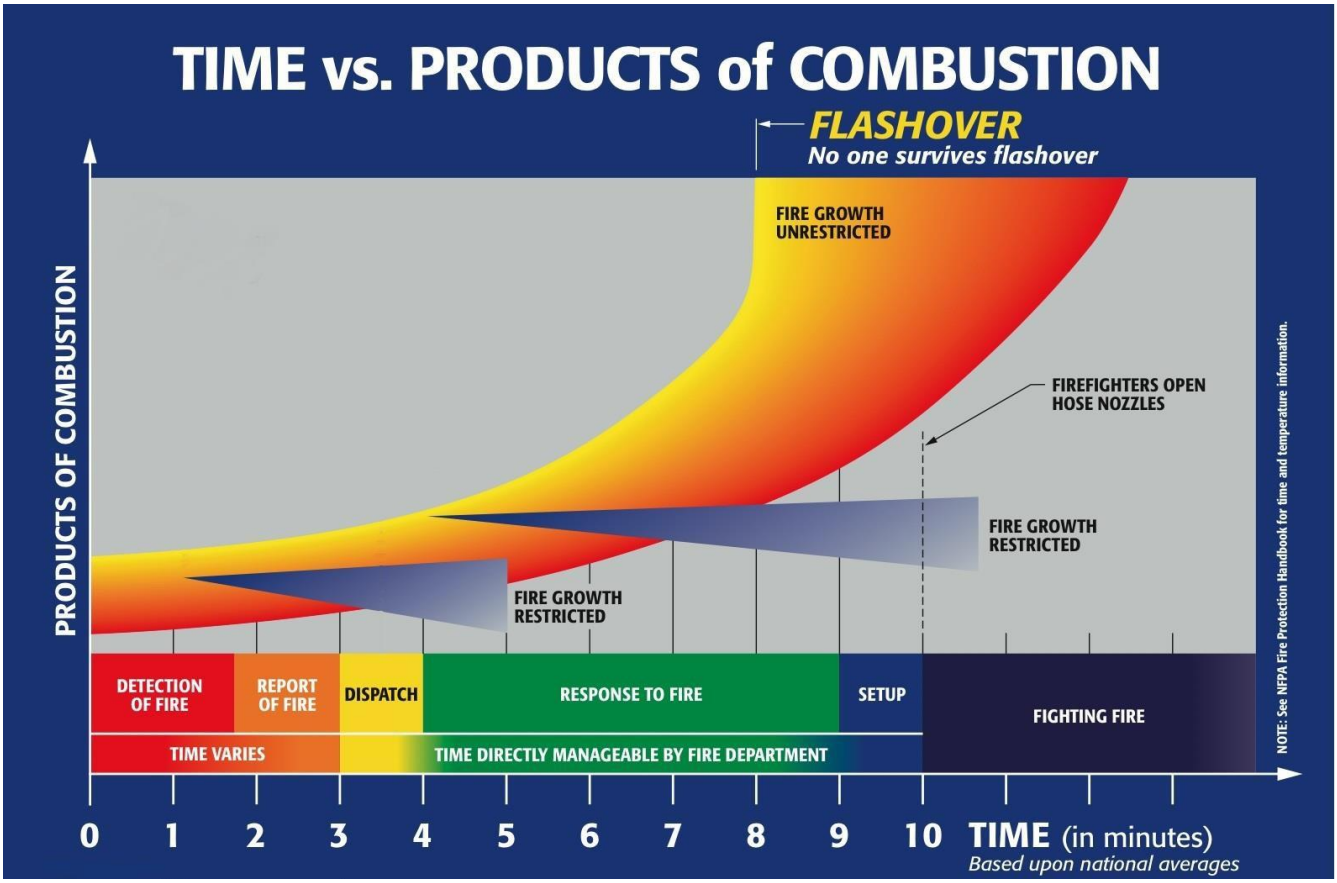


Figure 4 notes the following time variables:

- Detection of fire – this is when the occupant discovers that there is a fire. The fire may be in a very early stage or could have been burning for quite some time before being detected.
- Report of fire – this is when someone has identified the fire and is calling 9-1-1 for help.
- Dispatch – the time it takes the dispatcher to receive the information and dispatch the appropriate resources.
- Response to the fire – response time is a combination of the following:
    - Turnout time – how long it takes the career firefighters to get to the fire truck and respond or how long it takes the volunteer/paid-on-call firefighters to get to the fire station to respond on the fire truck.
    - Drive time – the time from when the crew advises dispatch that they are actively responding, until the time that they report on scene.
- Setup time – the time it takes for the fire crews to get ready to fight the fire.
- Fighting the fire – actual time on scene it takes to extinguish the fire.

Based on fire growth as demonstrated in figure 4 and the previously noted associated timelines, the overall goal of any fire department is to arrive at the scene of the fire and/or incident as quickly and as effectively as possible. In other words, if a fire truck arrives on scene in eight minutes or less, with a recommended crew of four or more firefighters then there is increased opportunity to contain the fire by reducing further spread of the fire to the rest of the structure.

In contrast, if the first arriving fire attack team arrives with only three firefighters on board, then it is limited to what operations it can successfully attempt. Based on studies and evaluations conducted by the National Institute of Standards and Technology (NIST), the NFPA and Ontario Firefighter Health and Safety Section 21 Guidelines, no interior attack should be made by the firefighters until more staff arrive on scene. The initial expectation is that a minimum of three firefighters and one officer arrive on scene to make up the initial response team. This team of four can effectively do an assessment of the scene, secure a water source (fire hydrant), ensure the fire truck is ready to receive the water and get the fire pump in gear, and finally unload and advance the fire hose in preparation for entry into the structure. A team of four also allows for adherence to the recommended "two-in, two-out" rule, which means that when two firefighters go into the structure, there are two outside ready to go in as back-up.

To be sure a compliment of four firefighters is always in effect, a response protocol is in place that ensures an additional station is automatically dispatched to the same incident whenever a station and its firefighters are dispatched to any type of call where back-up may be required.

Response Data

The following charts identify a comparison of response types and the response breakdown among the three fire stations for 2016. *To view the 2014 and 2015 data, refer to Appendix "E".*

As noted earlier in this document, there also needs to be a review of the future growth statistics and demographics of the community to understand where the potential future needs will be and where some efficiencies can be made.

The East Gwillimbury Emergency Services response times are calculated based on the OFMEM definition which is from "dispatch time, to time of arrival at the incident" (from the time the fire station or pager tones activate, to the time it takes to get to the fire station, get on the fire truck and drive to the emergency scene location). This response time does not include the time it takes to receive and dispatch the actual call.

As already noted, fire department response time is a function of various factors including, but not limited to:

- The distance between the fire department and response location

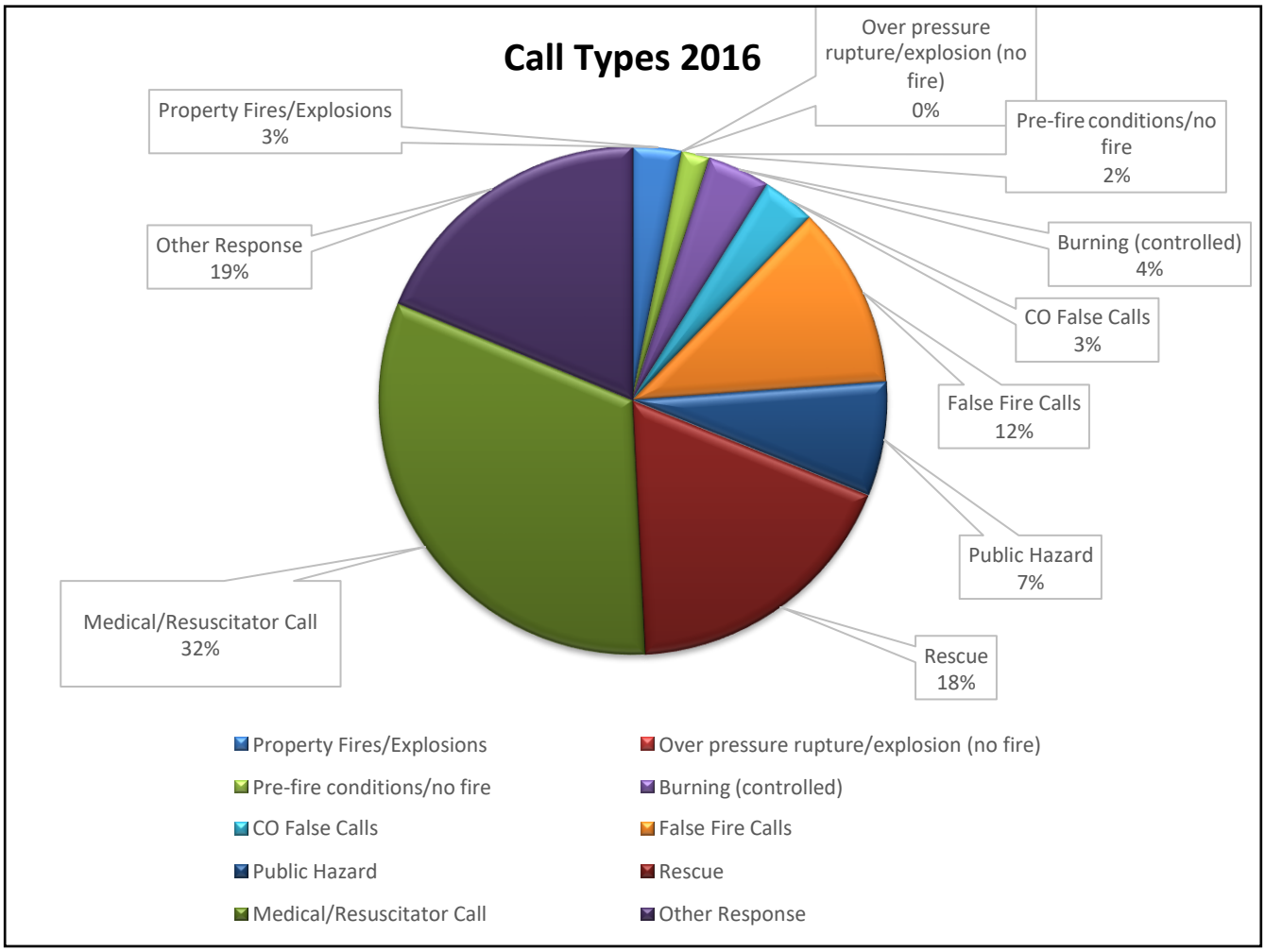
- The layout of the community
- Impediments such as weather, construction, traffic, road networks
- Notification time
- Assembly time of the firefighters, both at the fire station and at the scene of the incident

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

Note: The following charts may not reflect the total amount of calls that the Fire Chief has noted to Council in a report. This is due to the following points:

- ***To get a more accurate accounting of response times, some of the calls were removed from the data analysis due to identified anomalies in time stamping. For example, if an emergency response time was noted as taking hours, then it was removed based on the assumption of a data entry error.***
- ***Also, only the emergency responses were measured, which is the recommended practice noted by the NFPA and the Commission of Fire Accreditation International(CFAI)***
    - ***For example, a department may have noted a total of 2,500 calls for service for the noted year. However, only 2,000 of those calls were emergency responses.***

FIGURE(S) 5: Comparison of Calls and Response Data between Fire Stations



As illustrated in the above chart, the top three types of calls that EGES responds to are:

1. Medical/resuscitator, which accounts for 32% of the Department's overall responses
2. Other responses, which account for 19% of the Department's overall responses
3. Rescue related calls, which account for 18% of the Department's overall responses

Based on this information, the percentage comparison gives the Fire Chief and his staff the ability to monitor where the bulk of their resources are being utilized. This also offers greater focus for the Training Division to ensure that the firefighters are receiving training related to the types of responses that will demand a higher skill set.

The following charts are a comparison of calls for service by fire stations 2-4, 2-6 and 2-8. The charts will note:

- Total calls per year by fire station
- An overview of the 2016 call breakdown
- The 90th percentile numbers for travel times and total response times for station 2-6 with its full-time compliment and the 80th percentile for stations 2-4 and 2-8 due to its volunteer component.

Note:

The percentile criteria are the recommended practice endorsed by the National Fire Protection Association (NFPA) and the Commission on Fire Accreditation International (CFAI). This data is considered more accurate as it is evaluating the times based on 90 percent of the calls, as opposed to averaging the times at the 50th percentile. For example:

- ***For the 90th percentile assessment, this would represent that 9 out of 10 times the fire department arrives on scene in 8 minutes or less, which means that only 10 percent of the time they are above that 8-minute mark,***
- ***as opposed to 5 out of 10 times the fire department arrives on scene in 8 minutes or less, meaning 50 percent of the time they are above the 8-minute mark.***

- ***Travel Time is the time tracked from when the fire vehicle has left the station until arrival at the incident location.***
- ***Response time is the total time from receipt of call (on 9-1-1) to the time the fire vehicle arrives at the incident location.***

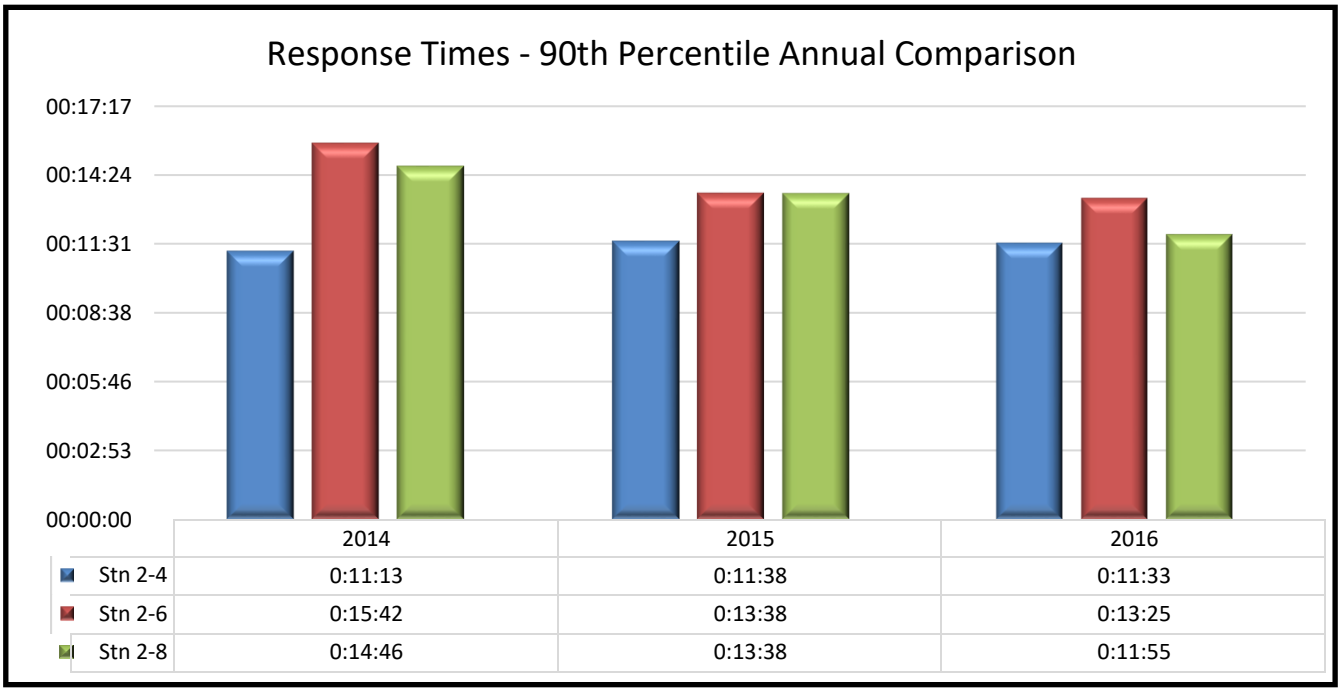
Yearly Comparisons of Calls for Stations 2-4, 2-6 and 2-8 for the years of 2014, 2015 and 2016

	2014		2015		2016	
	Stn 2-4	% of Calls	Stn 2-4	% of Calls	Stn 2-4	% of Calls
Property Fires/Explosions	17	3.87%	19	3.98%	15	3.28%
Over pressure rupture/explosion (no fire)	1	0.23%	0	0.00%	0	0.00%
Pre-fire conditions/no fire	7	1.59%	8	1.68%	5	1.09%
Burning (controlled)	28	6.38%	28	5.87%	19	4.15%
CO Alarm Calls	12	2.73%	21	4.40%	16	3.49%
Fire Alarm Activations	40	9.11%	59	12.37%	59	12.88%
Public Hazard	22	5.01%	23	4.82%	35	7.64%
Rescue	88	20.05%	102	21.38%	81	17.69%
Medical/Resuscitator Call	163	37%	145	30.40%	148	32.31%
Other Response	61	14%	72	15.09%	80	17.47%
Total Emergency Calls	439	100.00%	477	100.00%	458	100.00%

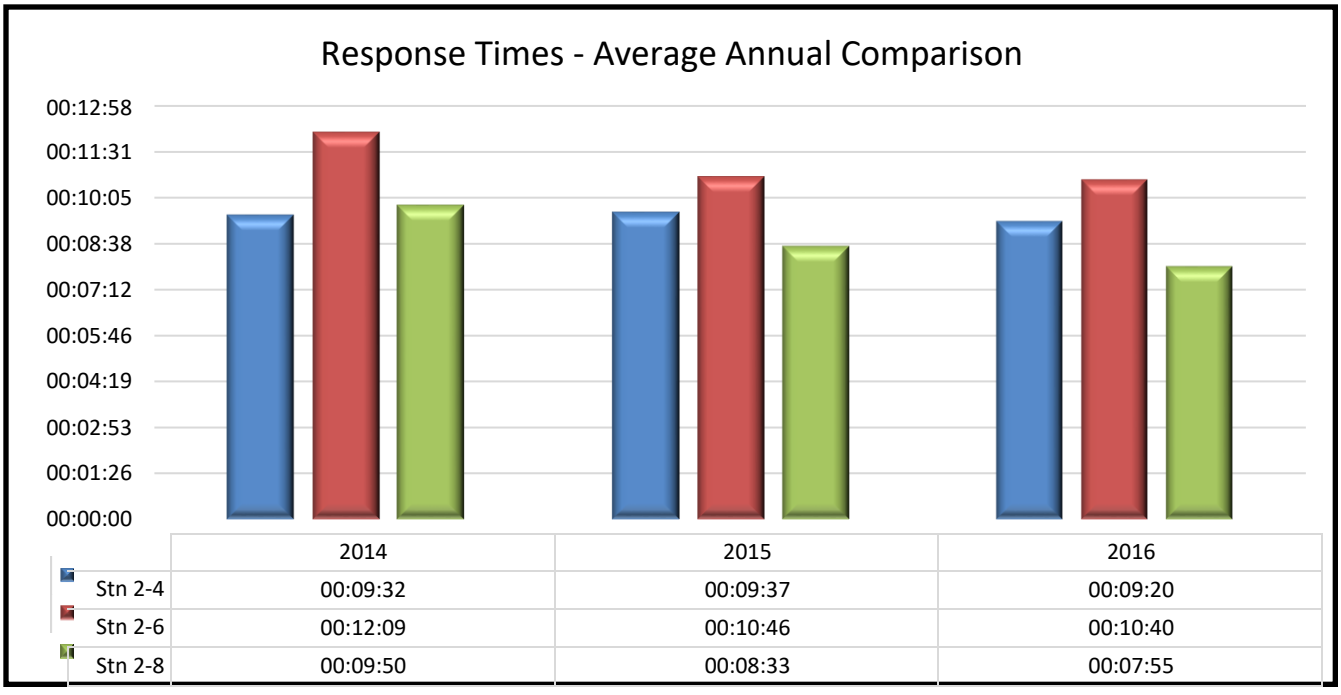
	2014		2015		2016	
	Stn 2-6	% of Calls	Stn 2-6	% of Calls	Stn 2-6	% of Calls
Property Fires/Explosions	16	6.50%	19	6.67%	5	1.72%
Over pressure rupture/explosion (no fire)	0	0.00%	0	0.00%	0	0.00%
Pre-fire conditions/no fire	5	2.03%	5	1.75%	8	2.76%
Burning (controlled)	11	4.47%	6	2.11%	10	3.45%
CO Alarm Calls	9	3.66%	8	2.81%	11	3.79%
Fire Alarm Activations	33	13.41%	27	9.47%	31	10.69%
Public Hazard	18	7.32%	18	6.32%	22	7.59%
Rescue	40	16.26%	47	16.49%	36	12.41%
Medical/Resuscitator Call	90	37%	102	35.79%	100	34.48%
Other Response	24	10%	53	18.60%	67	23.10%
Total Emergency Calls	246	100.00%	285	100.00%	290	100.00%

	2014		2015		2016	
	Stn 2-8	% of Calls	Stn 2-8	% of Calls	Stn 2-8	% of Calls
Property Fires/Explosions	10	3.91%	11	3.59%	13	4.15%
Over pressure rupture/explosion (no fire)	0	0.00%	0	0.00%	0	0.00%
Pre-fire conditions/no fire	6	2.34%	7	2.29%	6	1.92%
Burning (controlled)	19	7.42%	30	9.80%	13	4.15%
CO Alarm Calls	5	1.95%	11	3.59%	9	2.88%
Fire Alarm Activations	20	7.81%	28	9.15%	33	10.54%
Public Hazard	14	5.47%	22	7.19%	20	6.39%
Rescue	72	28.13%	71	23.20%	75	23.96%
Medical/Resuscitator Call	81	32%	87	28.43%	92	29.39%
Other Response	29	11%	39	12.75%	52	16.61%
Total Emergency Calls	256	100.00%	306	100.00%	313	100.00%

Yearly Comparisons of Response Times for Stations 2-4, 2-6 and 2-8 for the years of 2014, 2015 and 2016



	2014	2015	2016
Stn 2-4	0:11:13	0:11:38	0:11:33
Stn 2-6	0:15:42	0:13:38	0:13:25
Stn 2-8	0:14:46	0:13:38	0:11:55



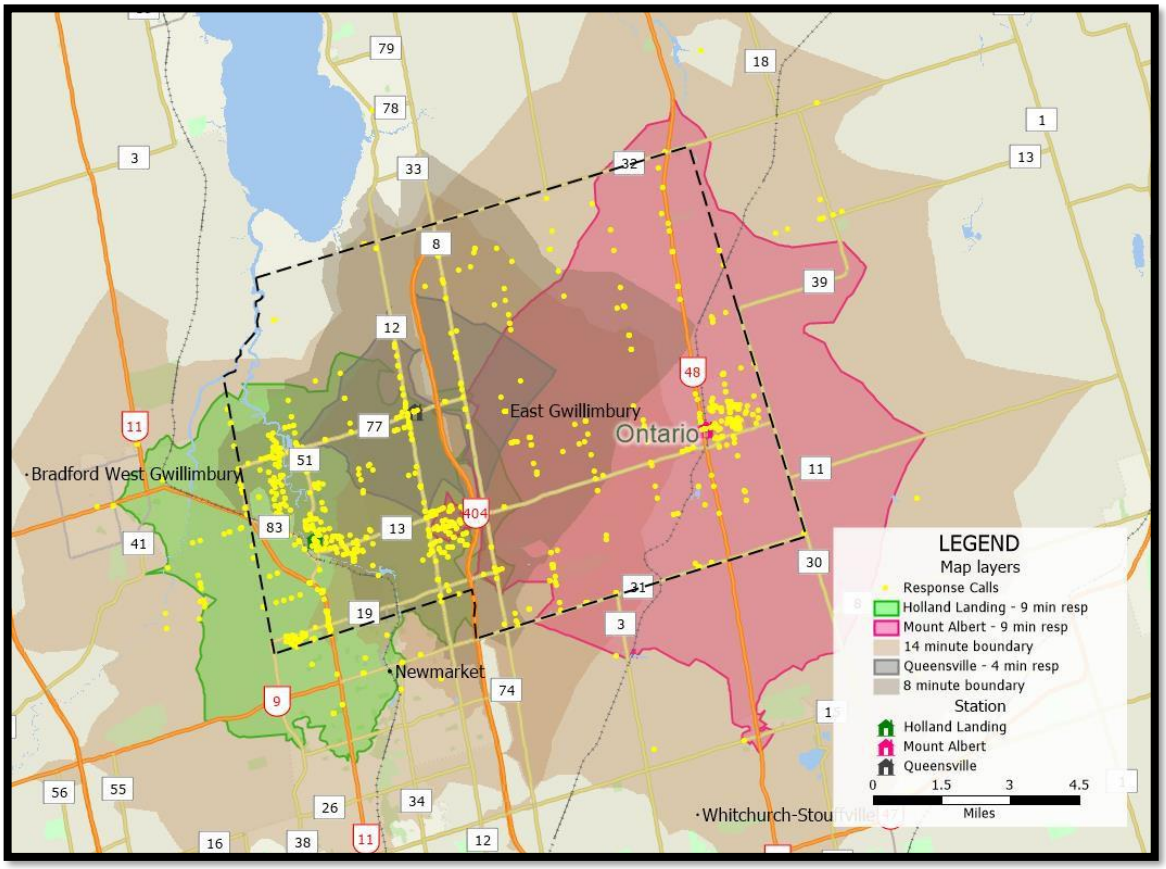
	2014	2015	2016
Stn 2-4	00:09:32	00:09:37	00:09:20
Stn 2-6	00:12:09	00:10:46	00:10:40
Stn 2-8	00:09:50	00:08:33	00:07:55

Note: Similar data and charts for 2014 and 2015 can be found Appendix "E"

Another useful tool is to pinpoint where the bulk of the emergency responses are occurring. This 'clustering' of responses will help to identify where the majority of calls are occurring, which will indicate if the present fire station locations are properly positioned, or is there a shift in call locations that would suggest the possible need for the relocation of a fire station.

FIGURE 6: Call Clustering Map

This call cluster map plots the locations of EGES calls, which can give the Fire Department a clearer understanding of where the bulk of their incidents are occurring and if these are still within a reasonable response vicinity of the fire stations.



As noted in the earlier part of this FMP, when identifying the strengths, weaknesses, opportunities and threats (challenges) within a community, tools like this cluster map help to identify such things as trends. The map denotes a large amount of calls along the Green Line, Yonge Street to Highway 404 corridor. Based on the present locations of the responding stations, it is recommended that the Fire Chief monitor future call volumes and related response times to identify if the need for a future fire station in this area might be warranted.

5.2 Service Level Standards – Dispatching Services

East Gwillimbury Emergency Services receives its dispatching services from the Richmond Hill Fire & Emergency Services (RHFES). Based on information received, along with a review of the dispatching data, it would appear that EGES is receiving adequate aid from the RHFES. However, the dispatching agreement has not recently been updated and, as such, a recommendation to review the working agreement is being made.

It was noted that the dispatching agreement was renewed in 2014. It is recommended that, at the first available opportunity, EGES incorporate the necessary performance measures as per the NFPA 1221, as noted below, to ensure a more consistent measure of the dispatching service (in relation to meeting all associated NFPA Standards):

NFPA 1221, Section 7.4 Operating Procedures

7.4.1 ***** Ninety-five percent of alarms received on emergency lines shall be answered within 15 seconds, and 99 percent of alarms shall be answered within 40 seconds. *(For documentation requirements, see 12.5.2.)*

7.4.1.1 Compliance with 7.4.1 shall be evaluated monthly using data from the previous month.

5.3 Reliability and Vehicle Movements

Section 5 has focused mainly on the response data received, which offers a sufficient level of assessment in relation to EGES response times to emergency calls. However, to get a more accurate picture of response capabilities and services being provided, a fire department should also track and evaluate total vehicle movements, along with how often a station's vehicles are available to respond to calls within its assigned response zone; this is known as the Reliability Factor.

The CFAI defines reliability as *"The degree to which a test or other examination is free from chance errors of measurement. The extent to which scores are trusted and dependable."* Based on the definition and the intent of measuring reliability, it is recommended that a fire service track how many times other units must cover calls that are outside of a specific station's response zone, and why these types of calls occur. This can be a result of the following:

- A station is receiving an increase in call volume that is exhausting present resources
- A fire service agreement with a bordering community is pulling the host community's fire vehicles out of the community more than anticipated, or even
- The types of calls are of such a nature that the present station's units are not equipped to handle the specific type(s) of response

By tracking the percentage of times that a station is unable to send a vehicle within its identified response zone, the Fire Chief is then able to identify areas of concern and possible solutions to address the situation. These solutions can range from the need for a new fire station, with vehicle and crew to respond to the increase in calls or at the very least might require the realignment of response zones. Either way, unless a reliability study is conducted on an annual basis, a fire chief will not be able to assess if the department's resources are adequately situated and supported.
The second factor of this section is the tracking of vehicle movements. These can also be an indicator of resource availability. Unlike some other service organizations, many calls that a fire department will

respond to require multiple units – for example, a house fire may require as many as four fully staffed units (with four firefighters per unit) to properly control and extinguish the fire. This house fire response would be counted as only one call, but in actual fact it has pulled the resources of as many as four fire stations to properly handle the situation. As such, in all cases, the number of calls related to vehicle movements varies greatly – e.g. 700 calls for service as opposed to a total of 1,750 vehicle movements to meet the response needs of the actual situations.

Even though the Fire Chief is monitoring call volumes and response capability, incorporating an overview of station location and its reliability to respond to calls within its response zone should also be reported to Council. Along with tacking of overall reliability, tracking of vehicle movements will offer a Fire Chief a more accurate accounting of how resources are being utilized.

Recommendation(s)

11. It is recommended that the Fire Chief present a standard of cover for Council approval. This standard would also speak to response time criterion, whether that is the NFPA 1720 – 15 staff in 9-minutes rule for urban communities or the 10 staff in 10-minutes rule for suburban community populations. A look at the NFPA 1710 standard of 4-minute drive time for full-time crews should be considered when EGES grows its full-time staff beyond the present level.

12. It is recommended that the Fire Chief continue to track call volumes and response times to the Green Lane and 2nd Concession corridor to ensure that EGES is able to keep up with the increase in service demand for this growing area of the Town.
    - This tracking of calls should be coupled with identifying any reliability related concerns with the Holland Landing station's ability to serve this growing area.

13. The present dispatching agreement with the current dispatch provider should be updated to include NFPA related standards for EGES to incorporate the necessary performance measures as per the NFPA 1221 standard.

Associated Costs *(all costs are approximate)*

- Recommendations #11 and 12: No initial cost to the implementation and monitoring of response times and call volumes, but staffing and equipment costs could increase in the future based on recommendations made by the Fire Chief as demand for fire service increases.
- Recommendation #13: Based on noted performance measure incorporation into the revised dispatching agreement, the dispatch provider may have additional increased costs

associated with these changes which they may pass on to the fire service, but no costing is offered at this time.

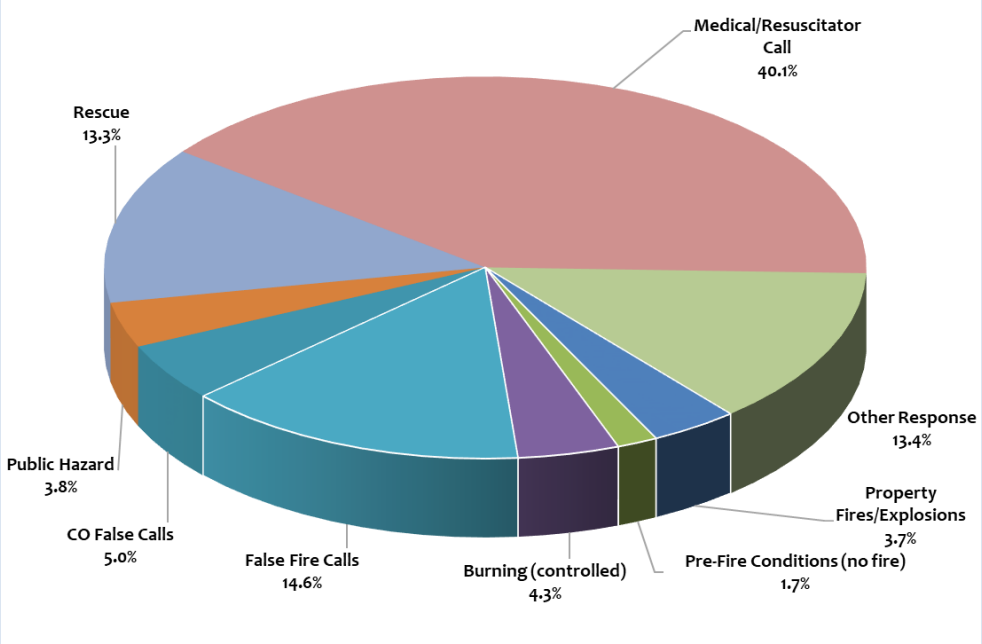
Timeline

- Recommendations #11 and 12: Immediate and ongoing (0 – 10 years). The response time assessments should be done annually.
- Recommendation #13: Immediate (0 – 1 year) with ongoing review of the services provided by RHFD

ESCI Update: (2022)

The following is the updated call response data for 2019 to 2021 and provided by ECSS.

Figure 1: Call Types 2019 – 2021



As illustrated in the above chart, the top three types of calls that ECSS responds to are:

1) Medical/resuscitator, which accounts for 40.1% of the Department's overall responses
2) Other responses, which account for 13.4% of the Department's overall responses
3) Rescue related calls, which account for 13.3% of the Department's overall responses

Based on this information, the percentage comparison gives the fire chief and staff the ability to monitor where the bulk of their resources are being utilized. This also offers greater focus for the Training Division to ensure that the firefighters are receiving training related to the types of responses that will demand a higher skill set.

The following charts are a comparison of calls for service by fire stations 2-4, 2-6 and 2-8. The charts will note:

- Total calls per year by fire station
- An overview of the 2021 call breakdown
- The 90th percentile numbers for travel times and total response times for station 2-8 with its full-time compliment and the 75th percentile for stations 2-4 and 2-6 due to its paid-on-call component.

Note:

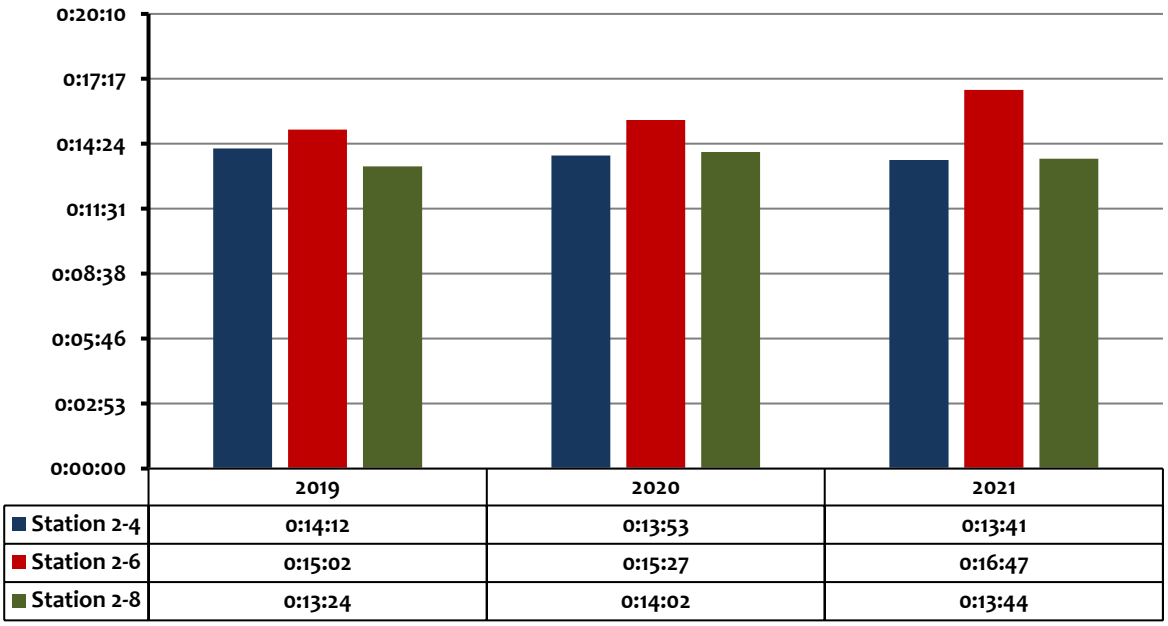
The percentile criteria are the recommended practice endorsed by the National Fire Protection Association (NFPA), the Commission on Fire Accreditation International (CFAI), and the Office of the Fire Marshal. This data is considered more accurate as it is evaluating the times based on 75 and 90 percent of the calls, as opposed to averaging the times at the 50th percentile. For example:

- For the 90th percentile assessment, this would represent that 9 out of 10 times the fire department arrives on scene in 8 minutes or less, which means that only 10 percent of the time they are above that 8-minute mark,
- As opposed to 5 out of 10 times the fire department arrives on scene in 8 minutes or less, meaning 50 percent of the time they are above the 8-minute mark.
- Travel time is the time tracked from when the fire vehicle has left the station until arrival at the incident location.
- Response time is the total time from receipt of call (on 9-1-1) to the time the fire vehicle arrives at the incident location.

Figure 2: Yearly Comparisons of Calls for Stations 2-4, 2-6 and 2-8 for the years of 2019-2021

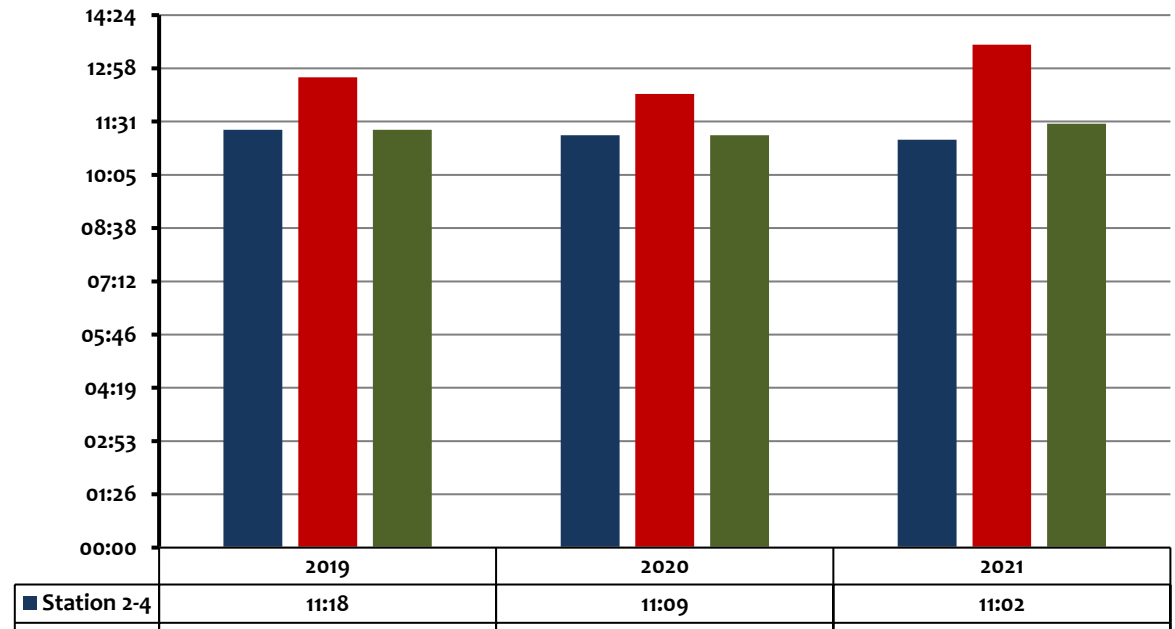
Incident Type	2019		2020		2021	
	Sta 2-4	% of Calls	Sta 2-4	% of Calls	Sta 2-4	% of Calls
Fires/Explosions	25	6.91%	29	4.66%	22	5.29%
Over pressure rupture/ explosion (no fire)	1	0.28%	0	0.00%	0	0.00%
Pre-fire conditions/no fire	6	1.66%	15	2.41%	7	1.68%
Burning (controlled)	7	1.93%	47	7.56%	6	1.44%
CO Alarm Calls	38	10.50%	92	14.79%	55	13.22%
Fire Alarm Activations	1	0.28%	49	7.88%	4	0.96%
Public Hazard	15	4.14%	30	4.82%	16	3.85%
Rescue	57	15.75%	94	15.11%	57	13.70%
Medical/Resuscitator Call	141	38.95%	222	35.69%	206	49.52%
Other Response	71	19.61%	44	7.07%	43	10.34%
Total Responses	362	100.00%	622	100.00%	416	100.00%
	Sta 2-6	% of Calls	Sta 2-6	% of Calls	Sta 2-6	% of Calls
Fires/Explosions	14	5.28%	7	3.18%	10	3.57%
Over pressure rupture/ explosion (no fire)	0	0.00%	0	0.00%	0	0.00%
Pre-fire conditions/no fire	6	2.26%	3	1.36%	8	2.86%
Burning (controlled)	4	1.51%	5	2.27%	7	2.50%
CO Alarm Calls	25	9.43%	15	6.82%	27	9.64%
Fire Alarm Activations	1	0.38%	10	4.55%	8	2.86%
Public Hazard	8	3.02%	8	3.64%	19	6.79%
Rescue	33	12.45%	20	9.09%	35	12.50%
Medical/Resuscitator Call	127	47.92%	129	58.64%	120	42.86%
Other Response	47	17.74%	23	10.45%	46	16.43%
Total Responses	265	100.00%	220	100.00%	280	100.00%
	Stn 2-8	% of Calls	Stn 2-8	% of Calls	Stn 2-8	% of Calls
Fires/Explosions	13	2.20%	2	1.06%	8	1.50%
Over pressure rupture/explosion (no fire)	0	0.00%	0	0.00%	0	0.00%
Pre-fire conditions/no fire	5	0.84%	3	1.60%	7	1.31%
Burning (controlled)	40	6.76%	3	1.60%	31	5.79%
CO Alarm Calls	119	20.10%	28	14.89%	110	20.56%
Fire Alarm Activations	44	7.43%	6	3.19%	50	9.35%
Public Hazard	16	2.70%	2	1.06%	20	3.74%
Rescue	95	16.05%	28	14.89%	46	8.60%
Medical/Resuscitator Call	179	30.24%	77	40.96%	198	37.01%
Other Response	81	13.68%	39	20.74%	65	12.15%
Total Responses	592	100.00%	188	100.00%	535	100.00%

Figure 3: Response Times - 90th Percentile Annual Comparison (2019 – 2021)



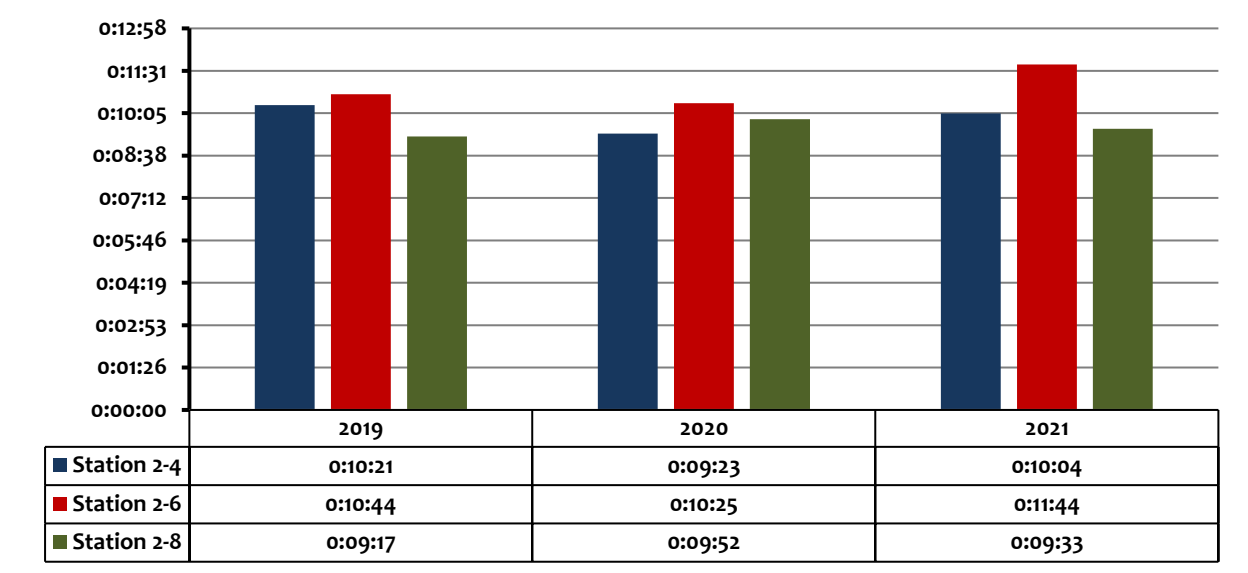
	2019	2020	2021
Station 2-4	0:14:12	0:13:53	0:13:41
Station 2-6	0:15:02	0:15:27	0:16:47
Station 2-8	0:13:24	0:14:02	0:13:44

Figure 4: Response Times - 75th Percentile Annual Comparison (2019 – 2021)



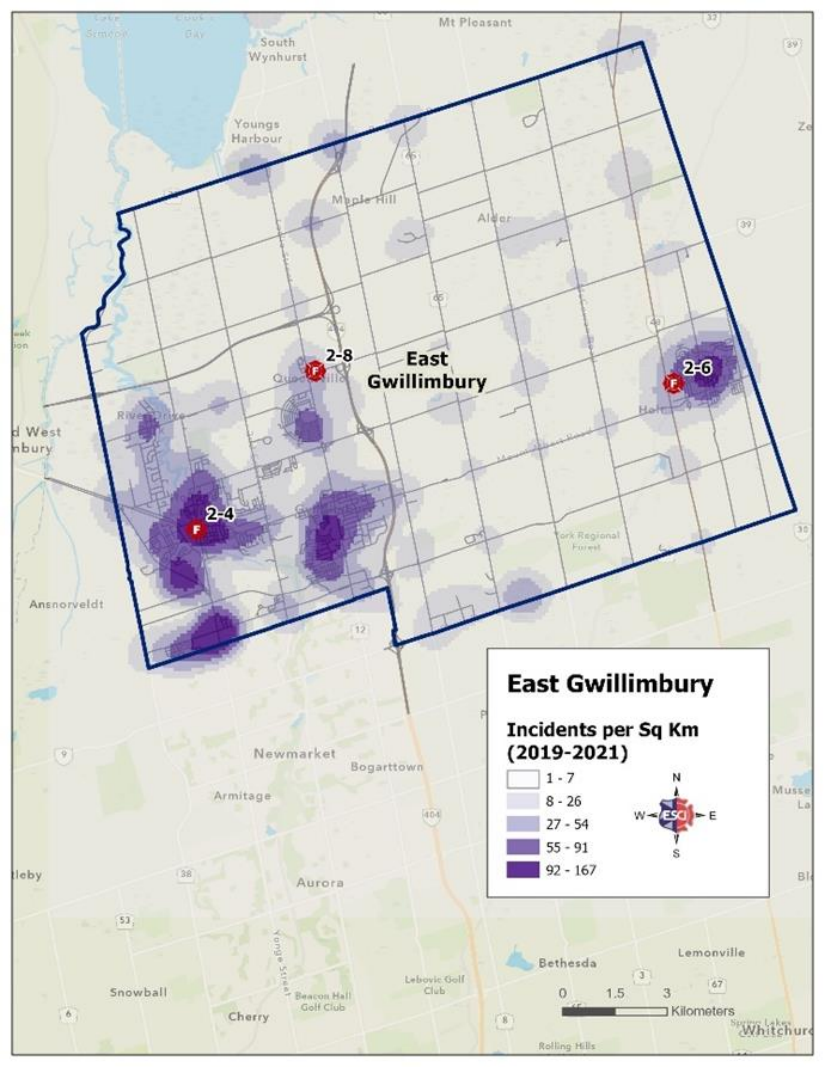
	2019	2020	2021
Station 2-4	11:18	11:09	11:02
Station 2-6	12:43	12:16	13:36
Station 2-8	11:18	11:09	11:28

Figure 5: Response Times – Average Annual Comparison



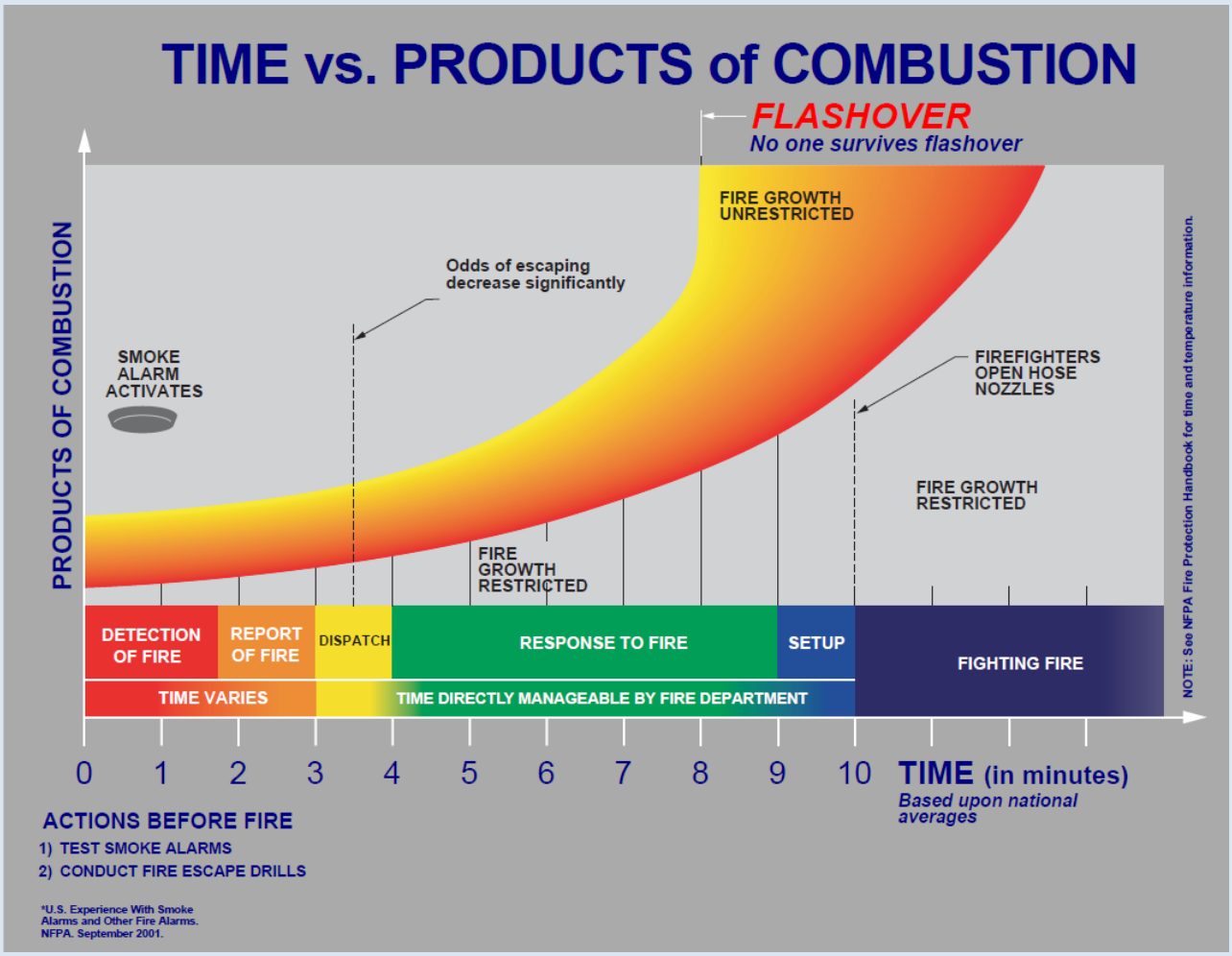
	2019	2020	2021
Station 2-4	0:10:21	0:09:23	0:10:04
Station 2-6	0:10:44	0:10:25	0:11:44
Station 2-8	0:09:17	0:09:52	0:09:33

Another useful tool is to pinpoint where the bulk of the emergency responses are occurring. This 'clustering' of responses will help to identify where the majority of calls are occurring, which will indicate if the present fire station locations are properly positioned or is there a shift in call locations that would suggest the possible need for the relocation of a fire station.



Data continues to point out that the highest percentage of incidents are medical calls. This is a trend that has been within the fire service for the past several decades. Medical calls, where a fire department participates in their response, are always at the top or very near to the top on types of call fire departments respond to. This is unlikely to change as population trends reveal increasing senior population levels, a demographic that has a higher than average use of the pre-hospital care system, in most communities.

Station 2-6, the Mount Albert station, continues to show the highest 90th percentile response time increasing each year over the past three years. In 2021, this was 16 minutes 02 seconds. This increasing response time concern for the Mount Albert area was also reflected in the community survey. It's conceivable these times are higher due to the fact that response times for paid-on-call apparatus are determined from the page time to arrival time.



Based on the “Time vs. Products of Combustion” chart in figure 4 of the previous Fire Master Plan, the associated timelines refer to the overall goal of any fire department arriving at the scene of a fire and/or incident as quickly and as effectively as possible. In other words, if a fire truck arrives on scene in eight minutes or less, with adequate resources, then there is increased opportunity to contain the fire by reducing further spread of the fire to the rest of the structure.

The chart has been amended to illustrate the narrow envelope of time for occupant survivability. Modern building construction materials and interior furnishings burn hotter, faster and produce various lethal toxic chemicals. Ontario Fire Marshal has recently communicated that survivability of a fire in a residential property is based on escaping the area involved in 60 seconds or less from the activation of the smoke alarm. Opportunity of rescue by the incoming fire service is extremely low. Occupants must have working smoke alarms and a well thought-out and practiced home escape plan in place to save themselves in the event of fire. Working smoke alarms are critical to survival.

Modernization:

As a part of modernization of the fire service, medical response continues to be the main alternative responsibility of the traditional fire department. York Region has its own Paramedic Services, paramedic stations are strategically located throughout York Region. While this report is not addressing medical response within the community and a more comprehensive analysis of medical response with York Region Paramedic Services. Just as in fire where minutes count, so does medical intervention. ECSS should investigate medical response capabilities in conjunction with York Region Paramedic Services to identify opportunities that directly enhance patient survivability. This would be part of a protocol that does not universally send fire apparatus to medical calls but a more targeted approach of sending fire apparatus when there is significant reason to warrant the additional response. Currently, as per the York Region Tiered Response Plan, ECSS responds to the following types of medical calls:

- Cardiac Arrest/Vital Signs Absent (VSA)
- Airway/Breath Compromise (unrelieved)
- Obvious Immediate Threat (OIT) Not Breathing
- Unconscious (non-syncopal episodes and ongoing active seizures)
- Allergic Reaction with drowsiness or confusion
- Breathing Problem with drowsiness or confusion
- Chest Pain/Heart Problem where the patient is not located in a health care facility (i.e., MD's Office, Nursing Home)
- Near-drowning
- Trauma with drowsiness or confusion
- Stroke/Cerebral Vascular Accident (CVA) with drowsiness and/or not awake
- Motor Vehicle Collisions with possible entrapment and/or on-scene hazard(s) (e.g., liquids leaking, downed power lines, airbag deployment, personal injuries, suspected difficult access, i.e., off-road.)

York Region Paramedic Services have indicated that they will be moving to a medical priority dispatch system (MPDS) in 2023. At that point, the tiered response protocols will be reviewed and updated, if required.

Response times have traditionally been the primary mechanism for evaluating fire department performance. This is due to

- It is tied to a fire department’s traditional mission which is reactive
- It is the primary expectation of the community
- It is more easily measurable while measuring the prevention of emergencies is more challenging

Recommendation #14:
Medical response:

ESCI recommends that ECSS continue their engagement with York Region Paramedic Services and the community to discuss medical response expectations and modify as required.

Recommendation #15:
Operational review:

ESCI recommends that ECSS should continue to monitor KPIs, in collaboration with all stakeholders, to determine key trigger points for strategic decisions related to operations are made pertaining to the three lines of defence.

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Ongoing

SECTION 6 – Facilities

6.1 Fire Station Review, Locations and Suitability for Future Growth

Section 6: Facilities

6.1 Fire Station Review, Locations, and Suitability for Future Growth

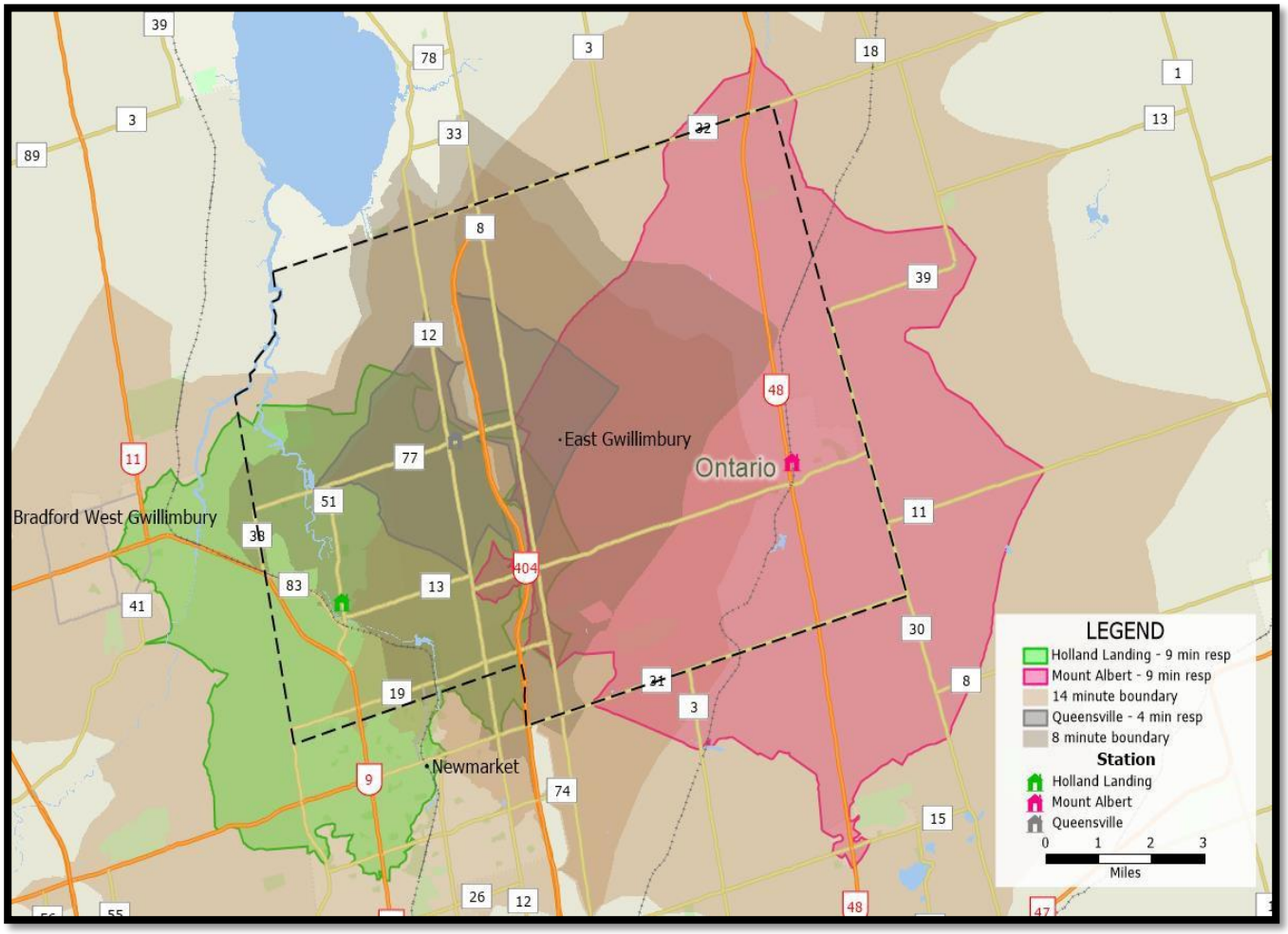
A review of the existing fire station facilities was conducted by EMT and will be addressed in this section.

Fire Station Location and Other Considerations:

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

Public Fire Safety Guideline – PFSG 04-08-13 on Fire Station Location notes fire stations should be situated to achieve the most effective and safe emergency responses. Distance and travel time may be a primary consideration; however, if a basic expectation of response time is set by the community's decision makers, then a more realistic level of service and fire station location criteria can be identified.

FIGURE 7: Present Fire Station Locations within East Gwillimbury



In the above noted map, the Holland Landing fire station, Station 2-4, is illustrated in green; the Mount Albert fire station, Station 2-6, is illustrated in pink; and the Queensville fire station, Station 2-8, is illustrated in grey.

In the map, the shaded areas around each fire station area denote a response time zone:

- For the Queensville fire station, this is based on the NFPA 1710 standard of 4 and 8-minute response time recommendations for full-time fire stations.
- For the Holland Landing and Mount Albert fire stations, this is based on the NFPA 1720 standard of 9 and 14-minute response time zones.

***Note:** These response times depict the coverage area by travel time as if the crews were in the station and immediately ready to respond. In actual fact, there are many times when the crews and/or the*

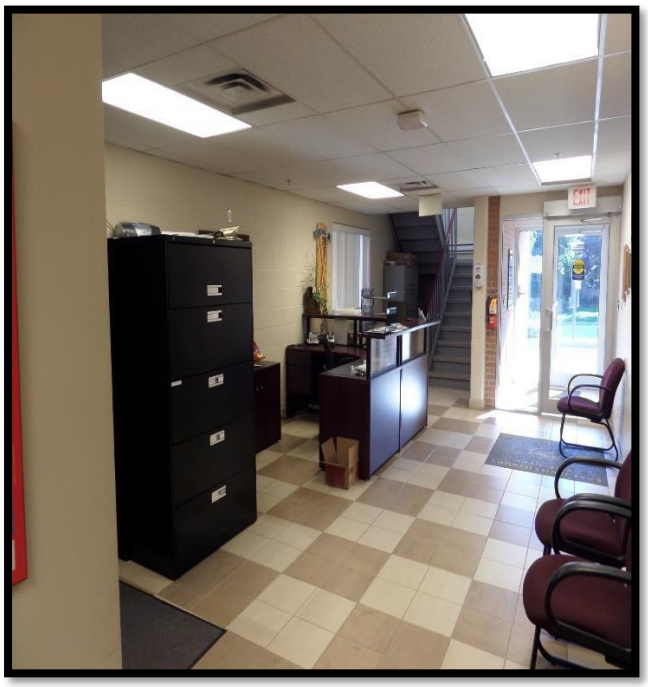
volunteers are not in the fire station and may (or may not) be either engaged on another call or at a far end of their response zone. These factors can create a longer response time by the crews to the incident location.

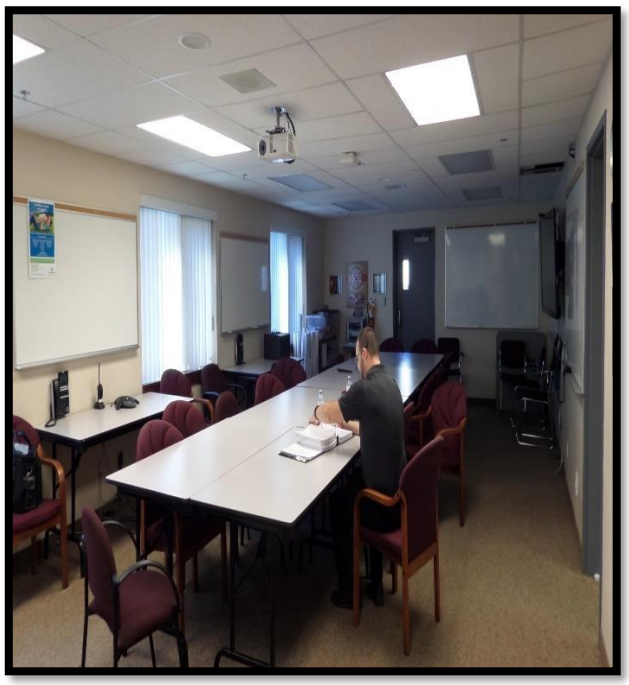
It should also be noted that the response mapping and related response data supplied in this document should not be taken in isolation. A full in-depth study along with an annual report submitted to Council by the Fire Chief with an update on the key performance measures and expectations is required.

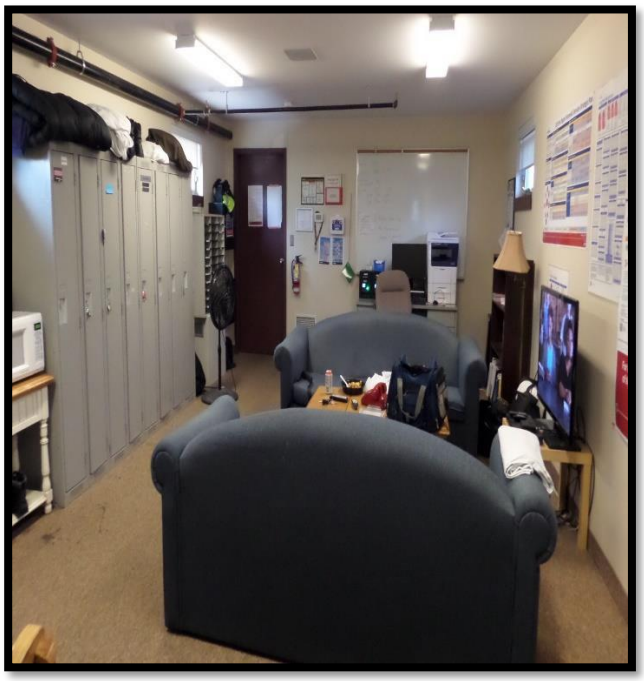
Holland Landing Fire Station – 2-4

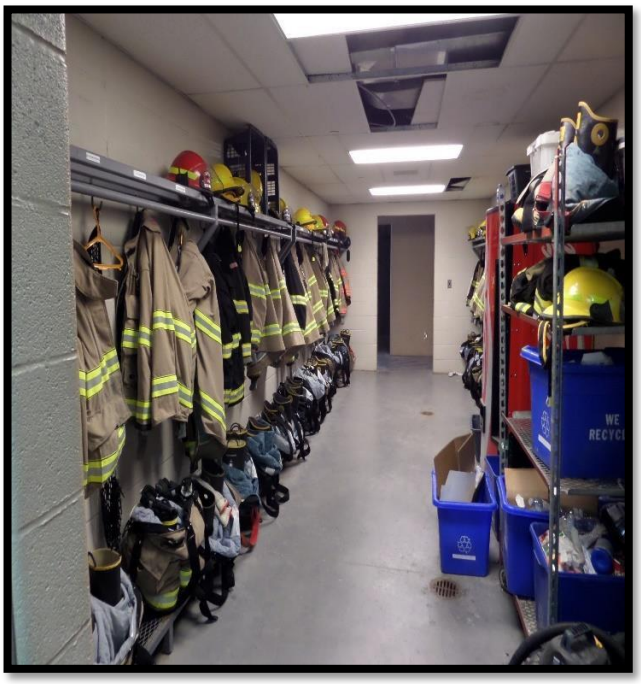
The Holland Landing fire station is located at 19314 Yonge Street and was constructed in 2002. This station is the Headquarters for EGES and houses Administration, Fire Prevention and Training Divisions.

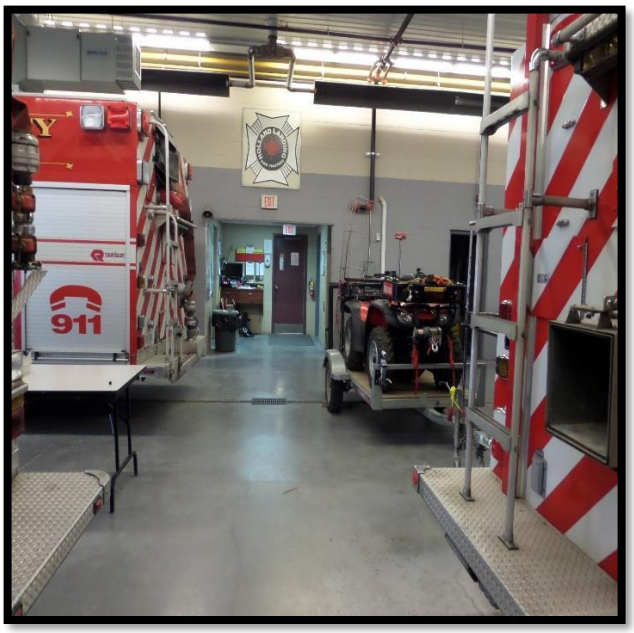
Presently, York Region EMS responds out of the Holland Landing Station. This creates efficiency by offering both services out of the same location for Holland Landing and surrounding communities.

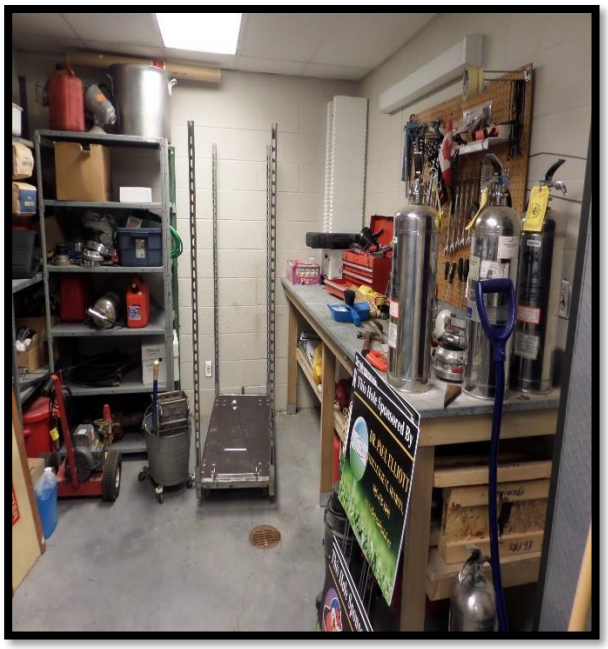












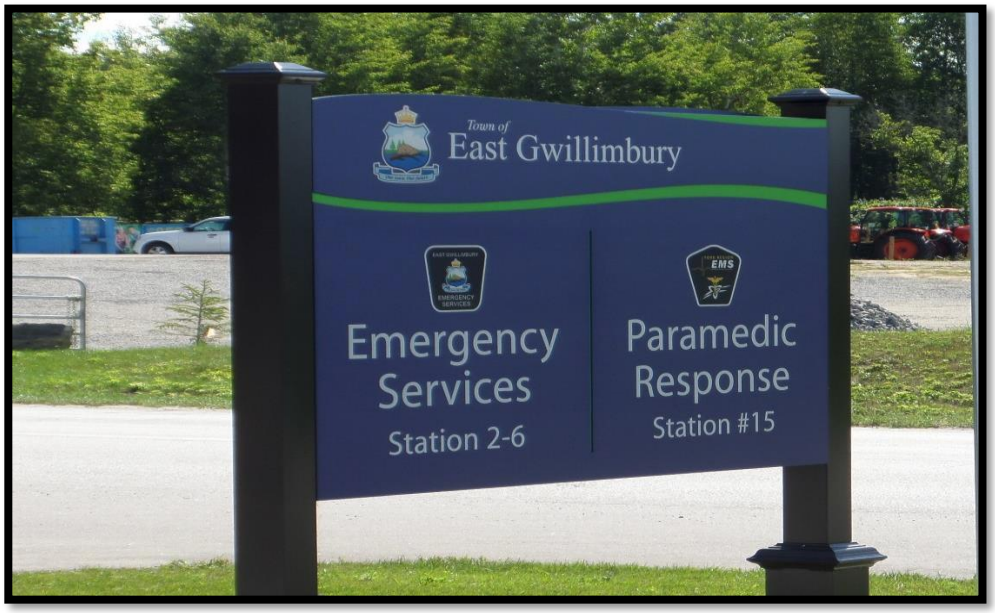
Office space, gear storage and vehicle bays were found to be well set-up and maintained.

During the walk-through and review of the Holland Landing fire station, no major structural concerns were noted, but it does appear that some general exterior repairs are required along with upgrading of the facility's HVAC operating system.

As an additional service to the community, all three fire stations are equipped with emergency phones so anyone in need of assistance can pick up the phone and speak directly to the dispatch centre.

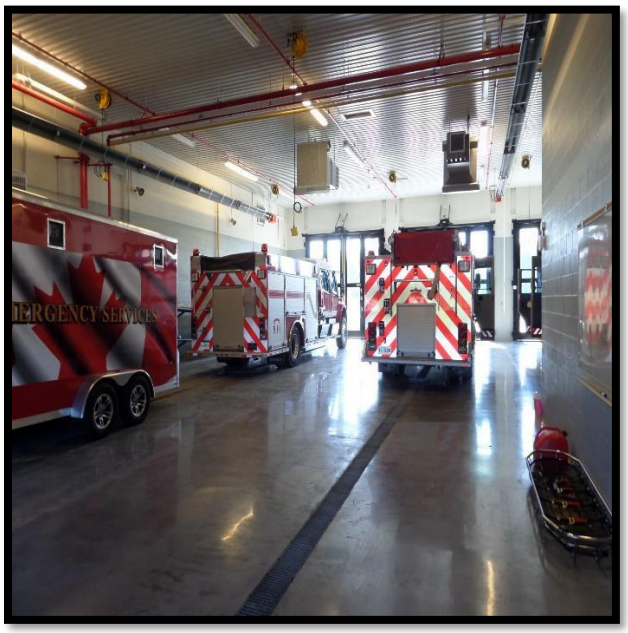
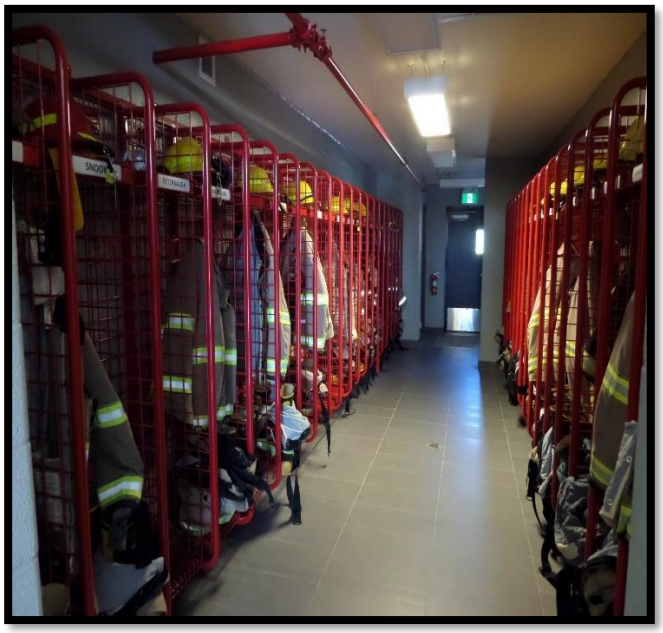
Mount Albert Fire Station – 2-6

The Mount Albert Station is located at 22 Princess Street. The new station opened in September 2015 and is presently staffed by volunteer/paid-on-call firefighters only.



The regional Paramedic Service is located in a separate building on the same lot as the fire station, providing added convenience to the citizens of Mount Albert and surrounding communities.

The following pictures are of the Mount Albert fire station:

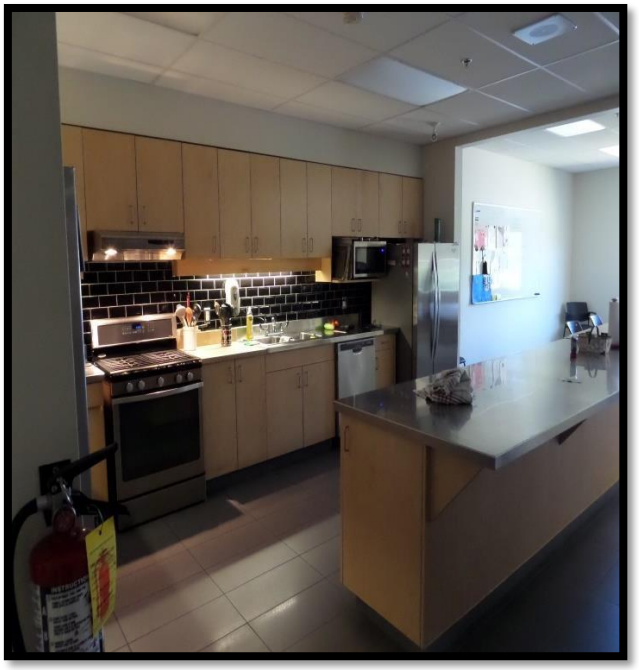





Office space, gear storage and vehicle bays are also well set-up and maintained.

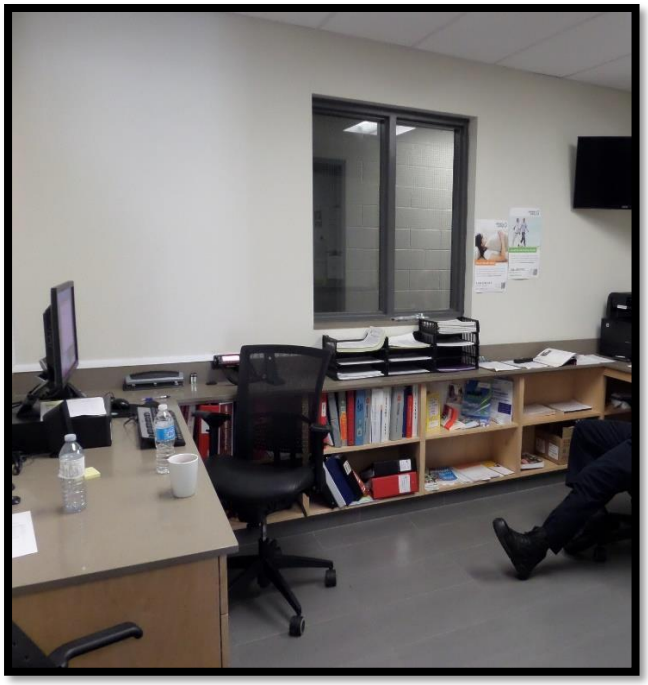
During the walk-through and review of the Mount Albert fire station, no concerns were noted.

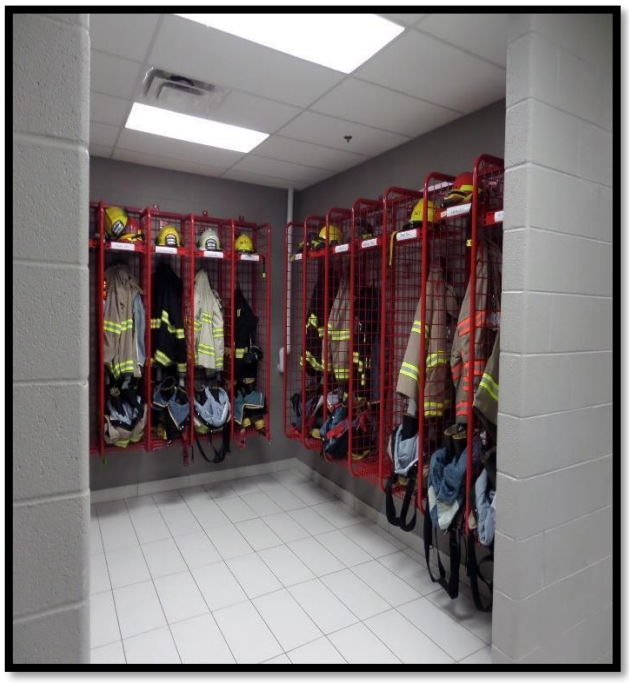
Queensville Fire Station – 2-8

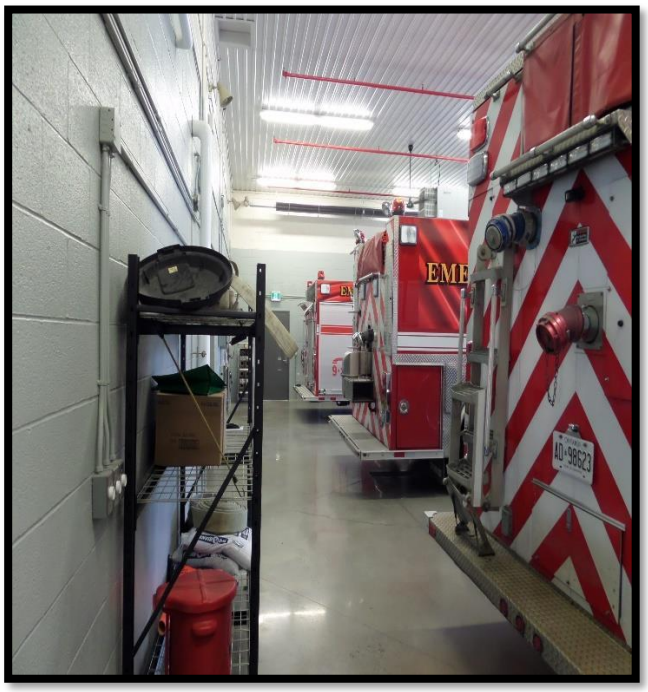
The Queensville fire station is located at 1590 Queensville Side Road, and was opened in 2015. Presently, this is the only station to have full-time crews for 24/7 response. They are supported by a dedicated contingent of volunteer/paid-on-call firefighters.



Facilities and crew quarters are well configured and maintained.







Office space, gear storage and vehicle bays are also well set-up and maintained.

During the walk-through and review of the Queensville fire station, no concerns were noted.

Overall Comments for Fire Stations:

During the walk-through of the three fire stations, they were all found to be in good condition with the exception of the Holland Landing station which is the oldest of the three. No major concerns were noted at the Holland Landing Station, but some exterior repairs are required and based on input received, it would also appear that the station's operating (HVAC) system requires work.

There is currently a three-year plan, with funding set aside, to address the previously noted work for the Holland Landing Station.

Recommendation(s)

14. It is recommended that EGES continue to follow through with the three-year repair/upgrade plans for the Holland Landing fire station.

Associated Costs *(all costs are approximate)*

- EGES has a three-year plan with $300,000.00 identified for the ongoing repair and upgrades required for the Holland Landing fire station.

Timeline

- Short-term (1 – 3 years)

ESCI Update: (2022):

Station 2-4

This station is in the area of the highest call volume and at some point will need to include facility upgrades to accommodate 24-hour career suppression as well as training, prevention and administration. It's currently utilized as the ECSS headquarters and Bylaws and Parking services. At 6,650 ft2, this is not a large station, especially if it will have a multi-function administration and operation use. The station did have a dormitory area that was converted to office space.

Station 2-6

This station is currently utilized by paid-on-call staff and would require facility upgrades to accommodate full-time operations and diverse workforce. As this is a more rural area of the community, response times are naturally extended. While it's conceivable that community growth over the next 30 years could translate to this station being staffed with career personnel, a readiness plan for how this transition might occur should be developed.

Station 2-8

The 2015 station refurbishment made it adequate for current usage and future growth.

Modernization*:*

The department would benefit in conducting a facilities study to determine adequate space for future growth. In a department wide facilities study, a consultant would evaluate the current facilities space usage and determine if there's adequate space for future growth. In addition, there is value to a sharing of facilities with other organizations that can reduce facility costs, both in construction and maintenance costs. Other government agencies are the most likely to consider participating since governance models, laws and rules are similar, however there are growing arrangements between government and non-profit organizations that benefit both as well.

Fire station design architects have square foot calculations for the various functions of a fire department. In administration, there are calculations for office space, meeting space, storage, and potential public areas. Within operations, contemporary fire standards include living and work configurations that reflect not only people being in the building 24 hours a day but space for surge capacity and anticipated future organizational growth. Departments that are in the process of transitioning between paid-on-call and career personnel often begin with having career personnel occupy space that was never intended for a 24-hour operation. A

facility study, with a perspective of future 24/7 occupancy, would provide good analysis of future space requirements.

Recommendation #16:
Space needs analysis:

ESCI recommends that ECSS should conduct a department-wide space needs analysis to identify potential space requirements as the organization expands. These space needs analyses can be accomplished through consultant projects ahead of a project to help determine potential costs or they can be accomplished during the design phase of project in process.

Cost*:*

$20,000 - $30,000 to conduct a study for all three fire stations.

Timeframe*:*

Medium term (2 – 5 yrs)

SECTION 7 – Vehicles and Equipment

7.1 New and Replacement Schedules
7.2 Maintenance

Section 7: Vehicles and Equipment

7.1 Fire Apparatus - New and Replacement Schedules

When assessing a fire department's ability to respond and meet the needs of the community, the Fire Underwriters Survey considers the age of a fire truck as one of its guidelines.

The fire vehicles are on a 15-year replacement cycle which keeps them within the Fire Underwriters recommendations and more importantly creates a standard when it comes to forecasting fire truck replacements.

Fire Underwriters Survey – Vehicle Replacement Recommendations

The Medium Sized Cities section (outlined in blue) is the recommendation for vehicle replacement for a town the size of East Gwillimbury. This allows for up to a 20-year replacement cycle, in which the fire vehicle can be utilized as second line response status. However, it is recommended that all first line units should still be replaced by a new or younger unit when it reaches 15 years of age.

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

1. *All listed fire apparatus 20 years of age and older are required to be service tested by a recognized testing agency on an annual basis to be eligible for grading recognition (NFPA 1071)*
2. *Exceptions to age status may be considered in small to medium sized communities and rural centre conditionally, when apparatus condition is acceptable and apparatus successfully passes required testing*
3. *Major cities are defined as an incorporated or unincorporated community that has:*
    a. *a populated area (or multiple areas) with a density of at least 400 people per square kilometre; AND*
    b. *a total population of 100,000 or greater.*
4. *Medium Communities are defined as an incorporated or unincorporated community that has:*

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

5. *Small Communities are defined as an incorporated or unincorporated community that has:*
   a. *no populated areas with densities that exceed 200 people per square kilometre; AND*
   b. *does not have a total population in excess of 1,000.*

FUS definition of 1st line, 2nd line and Reserve is:

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

The Fire Underwriters Survey (FUS) is reviewed by insurance companies, and as long as the Fire Department adheres to the recommended replacement timelines through an approved capital replacement schedule, the Department will retain its fire rating for vehicle replacement.

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

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

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

For the most part, the EGES is well-equipped with pumper trucks, rescues and tankers. There also appears to be a sufficient level of support vehicles and equipment to meet the general needs of the Department.

Replacement schedules are identified in the capital forecast for the fire trucks and large cost items. In relation to vehicle replacement and refurbish, the industry standard for the design and replacement of vehicles is the National Fire Protection Associations Standard 1901. It is recommended that this and

other related NFPA standards relating to vehicle design, replacement and refurbishing be utilized. During the station and equipment review, it was noted that the vehicles and small engines (pumps, generators, boat motors, etc.) are on a standard replacement cycle and that maintenance and repair work is addressed as quickly as possible by the Town or other recommended facilities.

7.2 Maintenance

EGES does not have its own mechanical division to complete all related repairs and testing to its vehicles and equipment. This is handled in the following manner:

- Full-time firefighting staff are expected to complete all daily, weekly and monthly (general) inspections and testing of vehicles and equipment.
- If any mechanical repairs are required for a vehicle, it is then decided whether or not this repair can be accomplished by the Town's Works Department or if this is a specialized repair that needs to be contracted out to a third-party facility/mechanic.

In their efforts to find collaborative and cost-effective opportunities within the N4 group, a couple of opportunities have come to light for this topic relating to the maintenance and repair of fire department vehicles. The first opportunity is to identify a central location in which a "shared" Emergency Vehicle Technician can work out of to conduct all general service and repairs on the vehicles from Georgina, King, East Gwillimbury and Whitchurch-Stouffville.

A second option is a blanket contract with a 3rd party organization that specializes in the service and repair of fire department vehicles. This 3rd party would work out of a central location along with having the ability for mobile response in the case of emergency repairs.

The advantage of either of these options is that no individual department would be bearing the $60,000.00 to $90,000.00 cost of hiring one EVT. The costs would be shared amongst the N4 group.

Recommendation(s)

15. The Town (with support from EGES) should follow through with the hiring of a vehicle maintenance technician who is qualified to work on large and small vehicles and also has the Emergency Vehicle Technician (EVT) certification, or can obtain it after being hired.
    - This recommendation offers a collaboration opportunity for the N4 group by utilizing existing facilities that are central to all four departments. This cost sharing initiative of one EVT to service the N4 group could be accomplished either through a fixed facility and/or mobile response unit.
    - One other option is for a 3rd party service company be contracted to work on the fire

department vehicles out of a joint facility.

Associated Costs *(all costs are approximate)*

- Cost of vehicle technician could range from $60,000.00 to $90,000.00

Timeline Mid-term (4 – 6 years)

ESCI Update: (2022):

ECSS has space in the new Operations Center that can accommodate a fleet maintenance program, however to this point, it has not been taken advantage of. Fleet maintenance is still outsourced.

Modernization*:*

The decision on whether to contract for services or to take on a service almost always comes down to one of control and expense. Using contractual services for work is often less expensive than hiring when work is intermittent and/or unpredictable. Consideration should also be given to initial equipment and resource investment that will be required but will result in a return on investment.

When collaboration is discussed, these issues become decision-factors for other organizations and should ECSS decide to advocate hosting these shared services, they should be aware that, while expenses are shared, so are time-obligations and commitments.

Recommendation #17:
Fleet services:

ESCI recommends ECSS should continue previous report recommendations to determine the feasibility of in-house fleet services as well as joint services with other departments.

Costs:

Updated costs for a vehicle technician could range from $90,000 to $125,000, including benefits, plus $50,000 to $100,000 in initial resource investments such as tools, maintenance equipment, etc.

Timeframe:

Ongoing

SECTION 8 – Emergency Management

8.1 Emergency Management Program

Section 8: Emergency Management

8.1 Emergency Management Program

As mandated by the *Emergency Management and Civil Protection Act* (EMCPA), all municipalities in Ontario must have an emergency response plan and an emergency planning program. For every community in Ontario, there must also be an identified Community Emergency Management Coordinator (CEMC); currently this duty falls to the Fire Chief of the Town.

East Gwillimbury's Emergency Response Plan was recently updated in 2014 and complies with all required legislation. The Fire Chief serves as the Community Emergency Management Coordinator (CEMC) and the Deputy Fire Chief serves as the alternate CEMC.

Current Condition

The primary Emergency Operations Centre (EOC) is located at the Town's Civic Centre located on Leslie Street in Sharon. The secondary (back-up) EOC is located at the Holland Landing fire station 2-4. Both facilities have back-up emergency power and fulfill the needs of the program and the community.

Recommendation(s)

No recommendations for this section.

Associated Costs *(all costs are approximate)*

- N/A

Timeline

- N/A

ESCI UPDATE: (2022):

The *Emergency Management and Civil Protection Act* (EMCPA), requires each municipality in Ontario to develop and establish, by By-law, an Emergency Management Program that consists of:

- An emergency plan;
- Training programs and exercises for employees of the municipality and other persons with respect to the provision of necessary services and the procedures to be followed in emergency response and recovery activities;
- Public education on risks to public safety and emergency preparedness;
- Hazard Identification and Risk Assessment (referred to as the "HIRA");
- Critical Infrastructure Review; and
- Any other elements required by the standards for emergency management programs.

The Town of East Gwillimbury consistently maintains compliance with the above legislation.

The Emergency Management Program is the responsibility of the Community Emergency Management Coordinator (CEMC), who is also the fire chief.

Whenever a larger scale emergency occurs, which affects the lives and property of citizens, the prime responsibility for providing immediate assistance and bringing the situation under control as quickly as possible, rests with the municipal government. Larger scale emergencies are typically coordinated in collaboration with local municipal partners and may escalate up to the provincial and federal governments, if necessary.

In the event of a significant emergency impacting the Town, the CEMC will conduct operations in the Emergency Operations Centre (EOC). EOC is the central facility or headquarters, from which appropriate staff will direct, coordinate, communicate and support operations within the municipality's jurisdiction.

A provincial standard Incident Management System (IMS) is currently being utilized in EOCs across York Region as a means of effectively managing the incident.

IMS consists of five key functions:

1. Command
2. Operations
3. Planning
4. Logistics
5. Finance/Administration

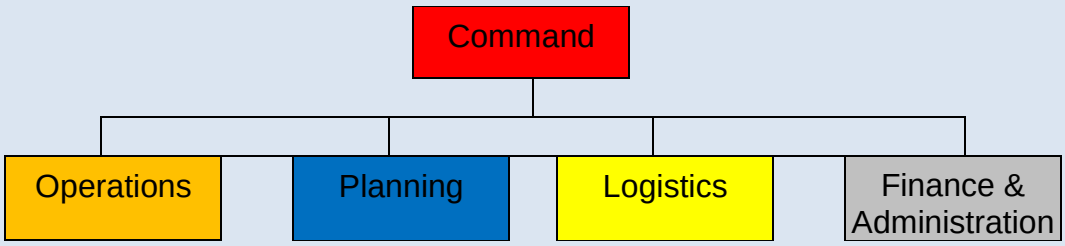


Figure 1: The five functions of the Incident Management System.

The N6 municipal CEMCs, in collaboration with York Region, have established a Memorandum of Understanding (MOU) to retain a shared Program Manager position that would ensure annual compliance with the EMCPA for all six municipalities.

The terms of the MOU have expanded over the years as required and the program continues to be successful. In addition to the annual program, in 2019 this Program Manager position assisted greatly with the COVID-19 response. There could be opportunities to expand the terms of the MOU further to assist municipalities with their Emergency Management Programs.

Recommendation #18:
Emergency Management:

Continue working with York Region on expanding the Emergency Management Program to address specific contingency plans for various hazards, technology improvements and expanding collaborative processes.

Cost:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Ongoing

SECTION 9 – Mutual and Automatic Aid

9.1 Mutual Aid, Automatic Aid & Fire Protection Agreements

Section 9: Mutual and Automatic Aid

9.1 Mutual Aid, Automatic Aid & Fire Protection Agreements

Mutual and Automatic Aid

East Gwillimbury Emergency Services is a member of the Region's Mutual Aid group and has positive working relationships with the other fire departments in the surrounding jurisdictions. As such, mutual aid and, where required, automatic aid agreements, are in place. The EGES is also a member of the York Region Mutual Aid Agreement Plan and Program, which includes the Town of Georgina, Township of King, Central York (Aurora/New Market), Town of Whitchurch-Stouffville, City of Vaughan, Town of Richmond Hill, and the City of Markham.

At this time, it would appear that these agreements are working well, but it has been a while since they were updated. As such, a full review of all mutual aid and any other service agreements that are in place be completed in the short-term to identify any required revisions.

Another focus of this FMP is to identify and recommend other collaborative initiatives. Based on this focus, it is recommended that EGES continue to review and aggressively search out opportunities in relation to the utilization of automatic aid agreements to support EGES and bordering fire departments with any potential opportunities for service and cost related efficiencies.

Recommendation(s)

16. It is recommended that it is recommended that a full review of mutual aid agreements that are in place be completed in the short-term to identify any required revisions.

    - It is further recommended that EGES continue to explore and enter into any automatic aid agreements that would support opportunities for service and cost related efficiencies.

Associated Costs *(all costs are approximate)*

- No identified costs to this recommendation. Potential costs could be incurred, depending on the recommendations made by the Fire Chief.

Timeline

- Short-term (1 – 3 years) and on an annual review basis

ESCI Update: (2022):

When an emergency incident requires more resources than a community can provide, mutual or automatic aid can be used to assist in mitigating the emergency incident.

Automatic aid is a form of mutual aid where units from one jurisdiction assist another jurisdiction on the initial response to an incident. The 2018 Ontario Mutual Aid Plan defines automatic aid agreements as:

For the purposes of the Fire Protection and Prevention Act, 1997 an automatic aid agreement means any agreement under which (a) a municipality agrees to ensure the provision of an initial response to fires, rescues and emergencies that may occur in a part of another municipality where a fire department in the municipality is capable of responding more quickly than any fire department situated in the other municipality; or (b) a municipality agrees to ensure the provision of a supplemental response to fires, rescues and emergencies that may occur in a part of another municipality where a fire department situated in the municipality is capable of providing the quickest supplemental response to fires, rescues and emergencies occurring in the part of the other municipality. 1997, c. 4, s. 1

Modernization:

East Gwillimbury has agreements to provide aid to Uxbridge, Whitchurch-Stouffville and Georgina. Due to labour agreements, there are challenges with establishing further aid agreements. More and more, communities are adopting response philosophies that minimize “the name on the side of the truck” when providing emergency response should go to the closest resource. Send the right resource to the right call at the right time.

Offsetting this is making sure that one community’s resources do not subsidize shortcomings of another community. In some instances, financial compensation can be used to subsidize response. There can be a benefit to both communities participating; however the benefits do not have to be equal in kind. As an alternative to financial compensation, one community could offer a response benefit to another community while the second community offers an administrative benefit in return. This form of arrangement allows for a more nuanced approach to receiving efficient assistance from other communities.

Recommendation #19:
Automatic Aid/Fire Protection Agreements:

ESCI recommends that ECSS create an automatic aid agreement with Georgina Fire and Rescue Services along Ravenshoe Road and other appropriate areas. Investigate the potential for agreements with other neighbouring communities, such as Bradford West Gwillimbury and Central York Fire Services.

These agreements create an opportunity for the closest unit to be dispatched and create quicker responses, establishing higher ERF (effective response force).

Costs:

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe:

Short term (0 - 2years)

SECTION 10 – Finance, Budgeting, and Capital Investment Plan

Section 10: Finance, Budgeting, and Capital Investment Plan

The East Gwillimbury Emergency Services has an annual operating and capital budget/forecast that fluctuates based on the staffing, programs and equipment that have been identified for replacement.

During the review of the budget process for both operating and capital, it was found that EGES is well set up in both areas. This would also indicate a good level of support by Council and the Towns' senior management team in relation to assisting the Fire Department in meeting its service goals.

When reviewing this section, the key area EMT looks for is whether or not actual operating expenditures are identified and tracked. During the review of the operating budget, it was noted that all key accounts operating sections are identified, such as:

Operating Budget Line Items:

- Staffing related costs
- Training
- Fire Prevention and related Fire Safety Education
- Vehicle and equipment maintenance
- Station maintenance

Capital Budget Line Items:

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

Operating Budget

A review of the operating budget for EGES shows that all general expenses and related revenues are accounted for.

Capital Forecasts

It would appear that there is a 15-year replacement cycle for the fire trucks that is based on the FUS recommendations for front-line vehicles. This replacement cycle mirrors the industry standards of 15 and 20 years, depending on the vehicle's function. The Town of East Gwillimbury and its Fire Department should be commended for its efforts in endeavouring to adhere to this industry standard.

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

- One pumper truck for every eight,
- One spare aerial truck for every eight,
- One spare tanker truck for every eight, etc.

This would mean that if you have eight or less of a certain type of vehicle, you should have a replacement unit in reserve, should one of those units go out of service.

A final area that should be reviewed by the Fire Chief is in relation to the reserve funds for equipment to ensure that adequate annual contributions for small equipment along with apparatus repairs, and contributions for future infrastructure (fire stations) are identified. If any shortfalls are identified, then the Fire Chief should identify what effect this will have on operations and bring forward any recommendations (for funding adjustments) if necessary.

Based on information received from the Fire Chief, there is a Town business plan in place that incorporates all the departments (within East Gwillimbury) to identify future goals and expectations. This plan does identify funding needs and expectations.

Recommendation(s)

There are no recommendations being put forth for this section.

Associated Costs *(all costs are approximate)*

- N/A

Timeline

- N/A

ESCI Update: (2022):

Other than labour costs, capital expenditures are frequently the largest expenditure a community incurs. Identifying what these are and when the expenditure will be incurred ahead of time is good planning. Sudden and unplanned large expenses can be detrimental to other parts of a budget. Good planning and financial forecasting can minimize the impact on budgets. To help offset risk, sufficient annual contributions to the capital reserve funds are required. Setting funds aside annually to handle capital expenditures is a way to minimize this risk, and while not completely eliminating the risk from unplanned events, it can limit how much adjustment is needed for future planning.

Fleet replacement is a significant routine capital expenditure fire departments can plan for. A fleet replacement strategy will help identify when future purchases are required in conjunction with the annual contribution to reserves. Options could be considered whether capital expenditures are a purchase or a lease. Both types of arrangements have their pros and cons. The Town does have an extensive fleet and asset management strategy in place that monitors both the asset lifecycles as well as the reserve balances to ensure the Town is prepared for replacement well in advance. A copy of the latest fleet strategy report can be found here:

https://eastgwillimbury.civicweb.net/filepro/documents/?preview=132918

Details of the asset management plan that covers non fleet capital assets are found here:

https://www.eastgwillimbury.ca/en/government/asset-management.aspx

In a purchase arrangement, the buyer has the funds in hand and can pay the full cost of the vehicle at purchase time. Often, sellers will offer discounts in this arrangement.

Pros: Possible discounts, no debt carried, no interest payments, earned interest on set-aside funds.

Cons: Funds must be set aside, sometimes years in advance. Reserve funds do gain interest. Funds cannot be used for other expenditures.

In a leasing-style arrangement, buyers take a loan to pay for the vehicle for a period of several years and accept vehicle ownership at the end of the loan period.

Pros: No advanced funding is needed. The expenditure only occurs when the vehicle is in possession.

Cons: Fewer discounts, debt must be carried, added expense through interest payments.

There are two possible ways to approach this. The first approach is to budget for proportional fund contributions annually. As an example, a purchase expected to be made ten years in the future can have ten percent of the anticipated cost budgeted annually. This is done for every vehicle in the fleet that is expected to be replaced.

Figure 6: Sample 1 Capital Reserves (in $1,000s)

	Proj Cost	Yr 1 Budget	Yr 2 Budget	Yr 3 Budget	Y4 Budget	Purch Yr Budget
Veh 1	$100	$20	$20	$20	$20	$20
Veh 2	$60	*	$15	$15	$15	$15
Veh 3	$75	*	*	$25	$25	$25
Total Ann Budget		$20	$35	$60	$60	$60

The second approach is to identify all fleet purchases to be made over a period of time, such as 20 years, and the years the purchases are anticipated. Annual budget allocations are calculated based on having the needed funds in the replacement fund at the time of purchase. This uses the fund balance of the fleet replacement fund as the basis for contribution rather than an annual percentage of the fleet. This approach costs less than the first as funds are allocated when needed rather than having funds sitting in a reserve account but not available cause they are allocated for another vehicle. It also provides stability in capital planning as annual calculations on projections over the next 20 years are tweaked in smaller amounts rather than the potential for significant year-to-year capital adjustments.

Figure 7: Sample 2 Capital Reserves (in $1,000s)

	Proj Cost	Yr 1 Budget	Yr 2 Budget	Yr 3 Budget	Y4 Budget	Purch Yr Budget
Veh 1	$100	*	*	*	*	$100
Veh 2	$60	*	*	*	*	$60
Veh 3	$75	*	*	*	*	$75
Total Ann Expenditure		$0	$0	$0	$0	$235
Total Ann Budget		$47	$47	$47	$47	$47
Total Res Balance		$47	$94	$141	$188	$0

The Town creates a 10 year capital plan forecast that assists the fire department in planning for growth and ensuring there is sufficient funds to acquire any forecasted new assets that may be required. This plan is reviewed annually by both Town staff and Council.

Recommendation #20:
Budget:

ESCI recommends East Gwillimbury continue to develop healthy budgets that are consistent with best practices and identify its financial philosophy for these types of expenditures and do future calculations to determine the least likelihood of future capital expenditure adjustments versus having reserve funds available when expenditures are to be made.

Cost*:*

Staff time to develop the plan and variable depending on which philosophy/plan is chosen.

Timeframe:

Ongoing

Recommendation #21:
Shared services:

ESCI recommends that shared service opportunities be considered, such as:

- Automatic Aid
- Special Teams/Technical Rescue
- Fleet Services
- Training
- Fire Prevention and Education
- Group Purchasing
- Fire Station Sharing
- Emergency Management

Cost*:*

ECSS staff to evaluate and budget finances and time accordingly.

Timeframe*:*

Ongoing

SECTION 11 – Review of Previous FMP

11.1 Building from the existing Fire Masterplan
11.1.2 Administration
11.1.3 Fire Prevention and Public Education
11.1.4 Fire Suppression
11.1.5 Training
11.1.6 Fleet Review
11.1.7 Communication & Technology
11.1.8 Next Steps

Section 11: Review of Previous FMP

11.1 Building from the Existing Fire Master Plan of 2006

Listed below are the recommendations for the 2006 Fire Master Plan. Most of the recommendations have been, or are in the process of being actioned by the Fire Chief, as appropriate.

The following is an excerpt from the 2006 East Gwillimbury Emergency Services FMP document. This information can be found on pages 21 to 52 of the original 2006 document. The 2006 FMP Report includes the analysis, results, findings, conclusions and recommendations summarized below. The original report provides an assessment of each Division of the EGES.

Conclusions and Recommendations From 2006 EGES FMP Document

The conclusions and recommendations contained within the EGES 2006 FMP report are summarized below, using the original wording, by division.

11.1.2 Fire Prevention and Education:

Mandate:

The *Fire Protection and Prevention Act* states that every Municipality shall establish a program which must include public education with respect to fire safety and certain components of fire prevention.

Actions:

- There is need to hire summer students to educate residents on the new legislation regarding smoke alarms. The Fire Code now requires smoke alarms on every storey of a residential dwelling. This became effective in 2006.
- The Department must continue to support and monitor the Risk Watch Program in the elementary schools. This is to be an ongoing process.
- Inspect all commercial, industrial and business establishments a minimum of every two years.
- Inspect schools and assembly occupancies yearly.

Fire Prevention updates:

- EGES staff are presently addressing the noted recommendations in relation to school inspections, Risk Watch Program and the utilization of a summer student.
- Fire Prevention staff are working diligently in relation to the two-year business and commercial inspection recommendation.

11.1.3 Emergency Planning:

Mandate:

All municipalities in Ontario must have an Emergency Plan in the event of a disaster. The Town of East Gwillimbury must meet the standards that are established by Emergency Management Ontario.

Actions:

- Hire a full-time staff person that would be responsible for all emergency planning in the Town of East Gwillimbury. In addition, this staff person would also be responsible for public educations programs as required by the *Fire Protection and Prevention Act*. This would occur in 2009.
- The Incident Management System is currently in draft framework and should be a Provincial Regulation by the end of 2006. All members of Council and staff within the Town with the Emergency Operations Centre and Emergency Plan will be required to be trained to the Provincial Standard in 2007.
- In 2008-2009 Emergency Management Ontario will require the Town of East Gwillimbury to go to an Enhanced Emergency Operation Centre. The current backup Emergency Operation Centre is the Mount Albert Fire Station which is inadequate. This should be done as soon as possible.

Emergency Planning Updates:

- With the exception of the hiring of a full-time emergency management coordinator, all of the other recommendations have been completed. Therefore, the Town should review this recommendation to decide on a possible implementation date for the creation of this position.

11.1.4 Training:

Mandate:

To train all Town of East Gwillimbury Firefighters to the Provincial Standard as established by the Ontario Fire Marshal's Office.

Actions:

- Work with York Region Fire Department, Regional EMS, Police and Seneca College to construct a Training Centre that would accommodate all emergency services. Planning to start in 2007.

- Training Centre should include a seven-storey training tower, water/ice rescue area, electrical vault prop (for confined space training), hazardous material props (vehicle and tanks to simulate chemical leaks and emergency coordinated response), flash over unit, driver training area.
    - ***Both of the previous items (that have been noted in the previous FMP) have been investigated by the present fire chief and will continue to be considered. However, at this time, it would appear that the building of such a large facility at this time would not be a cost-effective option. As such, more discussion amongst the partnering fire departments is required.***
- More emphasis to be put on officer development for current and potential officers. This would be ongoing.
- Send the Training Officer to Train-the-Trainer courses such as a confine space rescue, hazard material response and trench rescue.

Training Updates:

- The Department is still open to the concept of a joint training centre. This has also been noted as a recommendation within the 2017 FMP document. The key concern here is the cost of such a facility and the resulting return on investment for such a facility.

11.1.5 Operations:

Facilities:

Core Purpose:

To have Fire Stations located in a manner to meet the ten in ten requirements recommended by the Office of the Fire Marshal.

Actions:

- Relocated the existing station from Queensville Side road to Leslie Street and Doane Road. This location is ideal as it is central to the communities of Sharon and Queensville. The approximate timing would be 2009.
- The Mount Albert Station is adequately situated; however, the station will require an addition to accommodate fulltime staff. Timing of full-time staff will depend on the hiring ability and retention of VFF/POC firefighters.
- When the Woodbine Avenue corridor becomes developed, a station would be required in the Green Lane Corridor from Woodbine Avenue to Yonge St. The alternative would be to

negotiate a contract with Central York Fire Department to cover the Davis Drive – Green Lane area.

- The Holland Landing Station is ideally located and will also be able to cover the proposed Green Lane West Subdivision to meet the ten and ten requirements as set by the Ontario Fire Marshal's Office.

Operations Update:

- The Green Lane corridor recommendation is still being considered.

11.1.6 Apparatus and Equipment:

Since 1997, the Municipality has upgraded its vehicles with timely replacements. Council has worked successfully with the Ten-Year Replacement Program.

Master Plan Capital Requirement Forecast:

- As the development within the Town grows, an additional pumper and aerial device will be required. The size of the device will depend on the height. The current bylaw is forty feet. If height is increased, a ladder of 100 feet would be required. The cost of these apparatus would be funded through the development charges. The pumper would likely be purchased in 2009 and the aerial apparatus 2010 – 2011. This also depends on the growth of the development.
- The utility vehicle used by the Fire Prevention and Training Officer should be dedicated to the Training Branch and used by other staff when required. In 2008 provide the Fire Prevention Division with a van type vehicle for inspections, fire prevention displays, response to emergency incidents and fire investigations – has been completed.
- It is recommended that the replacement vehicle for the Holland Landing Station in 2007 be equipped with a high-pressure foam unit for protection to the airport, marina and for motor vehicle fires. This concept uses less water consumption and is safer for the firefighter with quicker knock down time and lessens the possibility of back draft safety for the firefighters.

Hazardous Materials Response Equipment:

- With the extension of Highway 404 to Ravenshoe Road and the expected growth in industrial establishments, there is going to be the increased possibility of hazardous material response. The recommendation would be to start purchasing basic equipment for these types of responses. The intent would be for rescue only, whether it be the Town's own firefighters or persons from the public. The back-up would still be from Georgina or Newmarket. These purchases would start in 2008.

- When the Risk Assessment was commissioned in 2003 by the nine York Region Municipalities and in compliance with Emergency Management Ontario, the Zeta Group, in consultation with town staff, listed the #1 hazard for East Gwillimbury being major highways and rail lines with threat of hazmat incidents in transportation as the highest factor.

Breathing Apparatus – Replacement Upgrade:

- The Department currently has 42 sets of completed self-contained breathing apparatus. Twenty of these apparatuses must be retrofitted to comply with NFPA and NIOSH Standards. The remaining will have to be replaced as the old breathing apparatus cannot be retrofitted. This can be staged over a 3 to 4-year period.

Apparatus and Equipment Update:

- This is an ongoing program for the Fire Chief. Recommendations are being submitted to Council in relation to equipment and budgetary needs.

11.1.7 Future Staffing Requirements:

Administration:

- Hire a full-time Fire Chief in 2008 with a full-time Deputy Chief in 2009.
- As the current Fire Chief is on a 30-hour week contract and with the anticipated workload expected with full time staff, it would be necessary that a full-time Fire Chief would be required.
- The following year (2009) there would be a need to hire a full-time Deputy Chief. This position would be responsible for Operations and the Training Division; it would also eliminate the position of Volunteer District Chiefs.
- With a full-time Fire Chief and Deputy Chief and full time Firefighters, there will be a need for a part time Administrator to assist the Administrative Assistant to the Fire Chief. This position should occur in 2009.

Emergency Planning:

- Hire a full-time Emergency Management Coordinator to look after all Emergency Planning issues for the Town of East Gwillimbury. This person would also be responsible for public information for Emergency Planning and Fire Prevention. This would occur in 2009.

Training Division:

- There will be no need for any additional staffing in the Training Division as the Training Officer will be assisted by full time staff when hired.

Operations:

Full-time Firefighters:

- In 2008 hire three full time Firefighters for the Queensville Station. This would cover day time hours, Monday to Friday. Three would be two Firefighters on duty; the third person would cover holiday and sick days. The turnout time and response time is minimum during the week day hours. They would also have the ability to respond to emergencies in the other two stations when required.
- In 2009 hire two full time Firefighters for the Queensville Station. This would allow a full crew to respond to anywhere within the Town of East Gwillimbury during day hours Monday to Friday.
- In 2010 add fifteen full time Firefighters. This would give the 24-hour coverage at the Queensville Station. There would be a minimum of four Firefighters on duty at one time, to respond to all emergency responses in the Town or East Gwillimbury.
- In 2011, start staffing the Mount Albert and Holland Landing Stations with three full time Firefighters, Monday to Friday during day time hours. Again, it is getting difficult to recruit VFF/POC firefighters for day time hours.
- In 2012 hire two full time Firefighters for the Holland Landing Station. This will allow for a full crew to respond to emergencies in the day time from Monday to Friday.
- In 2013 hire fifteen full time Firefighters for the Holland Landing Station. This would allow a minimum for four Firefighters on duty, 24 hours a day, and 7 days a week.
- In 2014 add three full time Firefighters to the Mount Albert Station. This would give a minimum of four full time Firefighters on duty in the day time from Monday to Friday. This may move to an earlier time if the Department cannot recruit and retain staff during the day time hours.
- In 2015 add eight full time add eight full time Firefighters to the Queensville Station. This would allow staffing of specialized rescue vehicle that would be trained and able to respond to any emergency within the Municipality.
- Note, VFF/POC firefighters should be retained as Firefighters to back up full time staff. The full time staff would respond to most medical responses, thus cutting back on the number of emergency responses by VFF/POC firefighters.

- The staffing is only a recommendation as numbers and years may change forward or back depending on timing of developments, whether residential or industrial/commercial. Therefore, staffing numbers in the 10-year forecast should be reviewed on a yearly basis. As stated previously there may be a problem in the future of recruiting and retaining volunteers in day time hours.
- There is no mention of staffing the Woodbine/404 corridor. This will be dependent on approvals and timing for this area.

Mechanic:

- The Emergency Service Department currently has 13 vehicles, from small vans to heavy apparatus. They currently contract out repairs and services to various firms as determined by the type of repairs required.
- It is important to recognize that emergency vehicle must be repaired immediately and back in service. It is also important that a preventative maintenance program be established and monitored by a competent staff mechanic. Fire apparatus is a unique piece of equipment as they involve pumps, primer, various types of valves, hydraulics (aerial trucks) and regular testing is required to meet NFPA, CSA and MOT requirements.
- It is recommended that when the Works and Transportation Department consider hiring a full-time mechanic that the Emergency Services Department be involved in the process.

Staffing Update:

- The Fire Chief and Deputy Fire Chief positions are now full-time
- As for the hiring of full-time firefighters, this continues to be a work in progress as population and call volumes (and incident types) increase. This type of recommendation is also closely tied to the response goals and expectations of Council and whether or not the Fire Department is meeting these service level expectations.

11.1.8 Next Steps

As noted in the 2006 FMP review, there were a total of 41 recommendations put forth. Of these, more than 30 recommendations have been completed. Recommendations in relation to Fire Prevention, a joint training center, staffing and the Green Lane Corridor fire station are still in progress. Many of these have also been addressed within the present Masterplan document.

Recommendation(s)

17. Continue with the updating and completion of any open projects noted in the previous 2006 Fire Master Plan.

Associated Costs *(all costs are approximate)*

- No identified costs to this recommendation.

Timeline

- Ongoing (1 – 10 years)

SECTION 12 – Fire Underwriters Survey

Section 12: Fire Underwriters Survey

During this Fire Masterplan project, EMT worked with a representative from the Fire Underwriters group. This team effort was to complete a review of the Department from two different perspectives.

Overview

The Fire Underwriters Survey is a national organization that provides data on public fire protection for fire insurance statistical work and underwriting purposes of subscribing insurance companies. Subscribers of Fire Underwriters Survey represent approximately 85 percent of the private sector property and casualty insurers in Canada.

Fire Underwriters Survey Certified Fire Protection Specialists conduct detailed field surveys of the fire risks and fire defences maintained in built-up communities (including incorporated and unincorporated communities of all types) across Canada. The results of these surveys are used to establish a Public Fire Protection Classification (PFPC) for each community. While Fire Underwriters Survey is not involved in rate making matters, the information provided through the Fire Insurance Grading Index is a key factor used in the development of Commercial Lines property insurance rates. The PFPC is also used by underwriters to determine the amount of risk they are willing to assume in a given community or section of a community.

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

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

The fire insurance grading system used does not consider past fire loss records but, rather, fire potential based on the physical structure and makeup of the built environment.

When a community improves its PFPC or DPG, insurance rates may be reduced, and underwriting capacities may increase. Every insurance company has its own formula for calculating their underwriting capacities and insurance rates, however, the PFPC and DPG classifications are extremely useful to insurers in determining the level of insurable risk present within a community.

2016 Fire Underwriters Survey Report

The original document contains over 200 pages of information and has not been attached to this report in its entirety – only the recommendations have been included.

***NOTE:* When Fire Underwriters makes a recommendation, it is to identify the present status of the Fire Department, and subsequently identify what changes are necessary to get "FULL" marks for the classification status. Their recommendations do not imply that the Department is not meeting the local needs, but that to obtain a perfect score or rating, the Fire Department will need to implement the noted recommendation(s).**

Overview of the 2016 FUS Recommendations

2.1. Summary of Recommendations

Recommendations	Fire Insurance Grading Weight	Grading Items
Recommendation 8.2-1 Provide Additional Engine Apparatus	Medium	PFPC - FD-1/FD-4
Recommendation 8.2-2 Provide a Reserve Engine Apparatus	Low	PFPC - FD-1/FD-4
Recommendation 8.2-3 Provide a Reserve Ladder Apparatus	Low	PFPC - FD-2/FD-4
Recommendation 8.2-4 Improve First Due Engine Coverage	High	PFPC - FD-3/FD-1/FD-4
Recommendation 8.2-5 Train and Qualify Additional Firefighters to Officer Positions	Low	PFPC - FD-6/FD-8
Recommendation 8.2-6 Improve Total Available Fire Force	High	PFPC - FD-7
Recommendation 8.2-7 Improve In Service Apparatus Company Staffing	Medium	PFPC - FD-8
Recommendation 8.2-8 Continue to Improve Facilities	Medium	PFPC - FD-13
Recommendation 8.2-9 Continual Development of Pre-Incident Plan Program	Medium	PFPC - FD-18
Recommendation 8.2-10 Continual Development of Pre-Incident Plan Program	Medium	PFPC - FD-13
Recommendation 9.2-1 Improve Reliability of Back-up Pumping Capacity - Mount Albert	Low	PFPC- WS-3
Recommendation 9.2-2 Frequency of Available Fire Flow Testing- All Water Systems	High	PFPC - WS-6
Recommendation 9.2-3 Improve Redundancy of Principal Mains- HQS and MA	Low	PFPC - WS-7
Recommendation 9.2-1 Private Hydrants should be Properly Identified - All Water Systems	Low	PFPC - WS-12
Recommendation 10.1-1 Review NFPA 1730 to aid in the development of the Town's Fire Prevention Program	Medium	PFPC - FSC-1/FSC-2
Recommendation 10.1-2 Improve Fire Prevention Inspection Program	High	PFPC - FSC-1/FSC-2
Recommendation 12.2-1 Develop Formal Water Supply Plan for Non-Hydrant Protected Areas; Consider Dry Hydrants	Medium	DPG

Summary of Fire Underwriters Survey Recommendations

Recommendation 8.2-1 Provide Additional Engine Apparatus

The engine service requirements for fire insurance grading have not been fully met with East Gwillimbury Emergency Services' existing fire apparatus fleet. East Gwillimbury Emergency Services may wish to improve its firefighting capabilities by acquiring additional apparatus. Fire apparatus should be ULC listed, be of an appropriate age, have an adequate pumping capacity, and be proven reliable.

East Gwillimbury Emergency Services received credit for 7.33 Engine Companies. Credit up to the maximum amount of 2.67 can still be awarded for this grading item.

Acquiring additional fire apparatus is a serious matter that requires careful consideration. There are many factors to consider and fire insurance grading is only one such factor.

Recommendation 8.2-2 Provide a Reserve Engine Apparatus

To ensure an adequate response when a fire department has an engine apparatus out for repair, a fire department should have a reserve engine apparatus equipped, maintained and ready for replacement purposes if its primary pumper is out of service. At a minimum, one engine apparatus should be kept in reserve for each eight engine apparatus which would include a single engine apparatus having a replacement apparatus.

For East Gwillimbury Emergency Services to receive maximum credit in this portion of the engine service grading item, a reserve engine would be required.

Recommendation 8.2-3 Provide a Reserve Ladder Apparatus

To ensure an adequate response when a fire department has a ladder apparatus out for repair, a fire department should have a reserve ladder apparatus equipped, maintained and ready for replacement purposes if its primary ladder is out of service. At a minimum, one ladder apparatus should be kept in reserve for each eight ladder apparatus which would include a single ladder apparatus having a replacement apparatus.

For the East Gwillimbury Emergency Services to receive maximum credit in this portion of the ladder service grading item, a reserve ladder would be required.

Recommendation 8.2-4 Improve First Due Engine and Ladder Coverage

First due coverage for Engines and Ladder could be improved to receive additional credit for fire insurance grading purposes. First due engine and ladder response credit for Engines and Ladders received less than 60 percent credit and it was determined that additional engine and ladder

companies for distribution would be required to receive near to maximum credit within this grading item for fire insurance grading purposes. Credit up to the maximum can be received if additional fire stations with engine and ladder companies are developed within the municipality to improve first due coverage.

Recommendation 8.2-5 Train and Qualify Additional Firefighters to Officer Positions

East Gwillimbury Emergency Services received a limited credit for career officers when measured against the 44 career officers needed based on a shift factor of 4. East Gwillimbury Emergency Services can receive additional credit up to the maximum if it increases the total number of Company Officers on the Fire Department. Credit can be received through a combination of career and auxiliary officers.

A fire department should have sufficient Company Officers available and assigned to provide one on duty response with each required engine or ladder company. The Company Officers should be adequately trained, preferably in accordance with NFPA 1021: Standard for Fire Officer Professional Qualifications, 2009 Edition or recent edition to receive full credit for fire insurance grading purposes.

Recommendation 8.2-6 Improve Total Available Fire Force

East Gwillimbury Emergency Services is credited with 18 firefighter equivalent units in its available fire force out of the maximum it can receive of 66. East Gwillimbury Emergency Services can receive additional credit up to the maximum if it improves its available fire force. Credit can be obtained through career and auxiliary members.

Note that the available fire forces can be improved through additional auxiliaries up to 50 of the required fire force. (In the case of East Gwillimbury Emergency Services, the required force is 66 firefighter equivalent units (FFEU), so the maximum available fire force that can be provided through auxiliary firefighters (volunteers) and other FFEU sources is 33.)

Providing additional staffing, either career or auxiliary, is a serious matter that requires careful consideration. There are many factors to consider and the fire insurance grading is only one such factor.

Recommendation 8.2-7 Improve in Service Apparatus Company Staffing

East Gwillimbury Emergency Services can receive additional credit up to the maximum in this grading item if it improves its staffing of in-service fire apparatus. It should be noted that this grading item is connected with other fire insurance grading items. They include engine service, ladder service and total available fire force. Changes in those grading items may affect the amount of credit received in this grading item.

Recommendation 8.2-8 Continue to Improve Training Facilities

East Gwillimbury Emergency Services does not have developed training grounds or facilities. Additional training facilities should be acquired. The following props and facilities are recommended to be developed within the Town of East Gwillimbury:

- Wet drill facilities
- Training tower
- Additional training prop for scenario based training

o	Fuel spill fire
o	Vehicle fire
o	LP tank fire
o	Gas main break fire
o	Industrial fire
o	Live fire facilities

Training facilities should be developed by the fire department in relation to the level of fire risk within the community so that realistic firefighting training can be conducted.

It is recommended that facilities for drill and training be readily available for purposes that include necessary buildings or structures for ladder work, smoke and breathing apparatus training, use of pumper and hose lines, lecture space, etc. If the fire department were to develop its own training facilities, it is recommended NFPA 1402 Guide to Building Fire Service Centres recent edition be used for development.

Ideally, for fire insurance grading purposes, training props and facilities should be located within the municipality of the fire department. Credit can be received for the use of training facilities and props in neighbouring communities if the fire department has access to use them. To receive full or partial credit, training facilities and props should be within 8 km of the municipal boundary. If training facilities and props are beyond 8 km, credit can still be achieved, but sufficient fire department coverage must be maintained within the municipality when fire department resources are outside of the community for training purposes.

Recommendation 8.2-9 Continual Development of Pre-Incident Plan Program

Additional Credit within this grading item can be achieved as a greater number of high occupancy and high fire risk buildings are pre-planned. Regular updating and use in training of pre-incidents plans should occur to ensure credit for fire insurance grading is achieved in the future. This may involve classroom discussions or visiting the site and performing firefighting or rescue scenarios. Increasing

the inventory of pre-incident plans will be paramount in receiving additional credit points. Credit awarded in this area of the fire insurance grading may help to improve the overall fire insurance grade of the community.

Recommendation 9.2-1 Improve Reliability of Back-up Pumping Capacity - Mount Albert

To receive maximum credit, remaining pumps in conjunction with or without storage, should be able to provide required fire flows for the specified durations at any time during a period of five days concurrently with consumption at the maximum day demand.

Additional back-up pumps for the Mount Albert groundwater wells are recommended if the Town of East Gwillimbury wants to receive additional credit up to the maximum within this grading item for the Schomberg water distribution system. Additional storage on the distribution system may also be an alternative to offset need for back-up pumps.

Recommendation 8.2.10 Continual Development of Pre-Incident Plan Program

No actual recommendation wording found in FUS document for this related recommendation that is noted in their chart.

Recommendation 9.2-2 Frequency of Available Fire Flow Testing - All Water Systems

Routine available fire flow testing should be completed on water supply systems that provide public fire protection. At a minimum, available fire flow test should be conducted every 5 years in accordance with NFPA 25: *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems,* recent edition and NFPA 291: *Recommended Practice for Fire Flow Testing and Marking of Hydrants,* recent edition.

NFPA 25 Reference 7.3.1 *Tests 7.3.1'" Underground and Exposed Piping Flow Tests. Underground and exposed piping shall be flow tested to determine the internal condition of the piping at minimum 5-year intervals.*

7.3.1.1 Flow tests shall be made at flows representative of those expected during a fire, for the purpose of comparing the friction loss characteristics of the pipe with those expected for the particular type of pipe involved, with due consideration given to *the age of the pipe and* to *the results of previous flow tests. 7.3.1.2 Any flow test results that indicate deterioration of available water flow and pressure shall be investigated* to *the complete satisfaction of the authority having jurisdiction* to *ensure that the required flow and pressure are available for fire protection. NFPA* 291 *Reference* 4.13 *Public Hydrant Testing and Flushing* 4.13.1'" *Public fire hydrants should be flow tested every* 5 *years* to *verify capacity and marking of the hydrant.*

4.13.2 Public fire hydrants should be flushed at least annually to *verify operation, address repairs, and verify reliability.*

Recommendation 9.2-3 Improve Redundancy of Principal Mains - HQS and MA

Redundancy of principal mains and water sources is important to ensure adequate pressures and flows can be continually provided throughout the community during foreseeable perils and system failures. Areas of the water distribution system should be reviewed to determine water mains that are most important and improve redundancy for those mains. Redundancy can also be accomplished by providing additional storage that would be available to the distribution system in the event of significant water main failure.

Recommendation 9.2-4 Private Hydrants should be Properly Identified - All Water Systems

Private hydrants are encouraged to be colour-coded differently than public hydrants. NFPA 291: Recommended Practice for Fire Flow Testing and Marking of Hydrants, recent edition recommends the following:

5.2.5.1 Marking on private hydrants within private enclosures is to be at the owner's discretion.
5.2.5.2 When private hydrants are located on public streets, they should be painted red or some other colour to *distinguish them from public hydrants.*

Recommendation 10.1-1 Review NFPA 1730 to aid in the development of the Town's Fire Prevention Program

As NFPA has recently released NFPA 1730: Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations, the East Gwillimbury Emergency Services is encouraged to review the document to see how they may incorporate aspects of the Standard into development programs in the future as the fire prevention division of the fire department grows.

Recommendation 10.1-2 Improve Fire Prevention Inspection Program

Increasing the frequency of inspections while continuing to meet legislative requirements of the *Fire Protection and Prevention Act 1997*, The Ontario Fire Code and OFMEM Public Safety Guidelines should be a priority of the Fire Prevention/Public Education division of the East Gwillimbury Emergency Services. In order to improve the frequency of inspections, additional resources in the form of Fire Prevention Inspectors will likely be necessary.

The amount of inspections should be improved if the Fire Department desires to receive additional credit within this grading item for fire insurance grading purposes. Incorporating a routine inspection program will be necessary to achieve better scoring under this item. The Department should develop

an inspection frequency that meets the needs of the community while maximizing fire insurance credit. The development of a plan that includes at a minimum annual inspection frequency of all properties should be investigated as it pertains to the needed resources and functions that will support the objective of annual inspections.

Two documents are recommended to be used as guides for developing an inspection program that goes beyond providing inspections on complaint and requests only:

- NFPA 1730: Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan
  Review, Investigation, and Public Education Operations, Chapter 6 Fire Prevention Inspection and Code Enforcement
- Fire Underwriters Survey - Technical Bulletin - Recommended Frequency of Fire Prevention Inspections Appendix G

Recommendation 12.2-1 Develop Formal Water Supply Plan for Non-Hydrant Protected Areas; Consider Dry Hydrants

East Gwillimbury Emergency Service provides structural fire protection to areas in the municipality that are without hydranted water supplies. In these area, the fire department responds utilizing the onboard water storage of the fire apparatus to provide Superior Tanker Shuttle Service. Plans should be developed to improve continuous flow rates from the fire department in areas that do not have hydrants.

Consideration should be given to installing dry hydrants or water tanks connected to a dry hydrant in strategic locations to minimize travel time during shuttling operations. Dry hydrants should be installed and designed in accordance with NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*, current edition.

Any improvements made to water supplies should be reviewed/approved by Fire Underwriters Survey if they are intended to be credited for fire insurance grading purposes.

SECTION 13 – Summary of Recommendations

Final Summary of Recommendations, Solutions and Estimated Costs

Section 13: Summary of Recommendations

Conclusion

During the review conducted by Emergency Management and Training Inc., it was demonstrated that the full-time staff and the firefighters are truly dedicated to the community they serve. Council, CAO and Fire Chief are sincerely committed to ensuring the safety of the community and the firefighters of East-Gwillimbury. Based on the present staffing, equipment and fire stations locations, East Gwillimbury Emergency Services is endeavoring to offer the most efficient and effective service possible.

All costs and associated times are approximate estimates that can be implemented through prioritization between the Fire Chief, CAO and Council.

Most fire master plans are 10-year documents with a review to be conducted at the five-year point. Due to some of the specific recommendations made in this document, it is advised that the Fire Chief view this as a "living document", conduct more frequent reviews of the recommendations, bringing forward updates to Council, as required.

Recommendations and Estimated Costs

The following chart provides further overview of the recommendations found throughout this report along with any estimated costs that can be incurred in the associated areas.

This Fire Masterplan document is a culmination of three individual reports:

- The 2017 Fire Master Plan, which contains a total of 16 recommendations,
- The Fire Underwriters review, which contains 17 recommendations, and
- The 2006 Fire Master Plan document, which contained 41 recommendations, of which the majority have been completed.

Between the three documents there is a total of 34 recommendations for consideration by the East Gwillimbury Emergency Services and its Council.

ESCI UPDATE (2022):

Summary of ESCI Recommendations:

#	Pg. #	Recommendation	Cost	Timeframe	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
1	30	**Establish standards:** ESCI recommends that, since the mission of ESCC is to provide quality service to the community, the fire chief should develop indicators of when the service models should be assessed are when the services show signs of strain. Department growth cannot be based solely on the NFPA response standards (1710 and 1720). Fire suppression triggers, such as turnout and response times, recruiting, retaining and ongoing attendance of paid-on-call staff, etc. are elements to be monitored for the signs of strain. In addition, it is recommended that ECSS use a variety of tools and programs, such as the Community Risk Assessment, statistics and data from the Office of the Fire Marshal and local data to determine appropriate Key Performance Indicators (KPIs) for the public education, prevention and training divisions.	Based on the growth rate and forecasting, ECSS staff to adequately budget and account for all three lines of defence services, both short and long term.	Ongoing											
2	37	**Establish a framework:** ESCI recommends that ECSS continue to establish a framework for departmental growth that is appropriate for a composite department in East Gwillimbury. It is recommended that ECSS use information gathered from recommendation #1 to assist with this framework.	ECSS staff to evaluate and budget finances and time accordingly	Ongoing										
3	41	**Obtain Council approval:** ESCI recommends the Fire Chief, with Town Council approvals, should adopt measurable performance standards/KPIs for each of the three lines of defence.	ECSS staff to evaluate and budget finances and time accordingly	Medium term (2-5 yrs)										
4	41	**Monitoring:** ESCI recommends the Fire Chief continuously monitor the department's overall performance based on the established and adopted standards.	ECSS staff to evaluate and budget finances and time accordingly	Ongoing										
5	43	**Bylaw amendment:** ESCI recommends the current Establish and Regulate By-Law, which is now 11 years old, be reviewed and updated as outlined in Section 8.4 of the existing by-law.	ECSS staff to evaluate and budget finances and time accordingly	Short term (0-2 yrs)										

#	Pg. #	Recommendation	Cost	Timeframe	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
6	45	**Accreditation:** ESCI recommends that ECSS consider and pursue full or partial accreditation with Commission On Fire Accreditation International (CFAI).	ECSS staff to evaluate and budget finances and time accordingly	Long term (5-10 yrs)										
7	50	**Communication:** ESCI recommends the fire chief should continue to keep open communication channels with both the community and workforce. When possible, the fire chief should keep all staff up-to-date on strategic objective timetables and implementation progress and involve the workforce in the implementation processes.	Cost to be evaluated and contained within the annual operating budget	Ongoing										
8	53	**Develop a Community Risk Assessment (CRA):** As directed by the Office of the Fire Marshal, complete the CRA by July 1, 2024 to replace the existing Simplified Risk Assessment (SRA).	ECSS staff to evaluate and budget finances and time accordingly	Short term (0-2 yrs)										
9	58	**Maintain a CRA:** Maintain a CRA framework to be used as a tool for the Town of East Gwillimbury to support the strategies of the organization, determine risk mitigation requirements, and provide justification during annual budget process.	ECSS staff to evaluate and budget finances and time accordingly	Ongoing										
10	63	**Technology:** ESCI recommends that ECSS should continue to equip and upgrade applicable apparatus with adequate technology and data access to engage in preplanning and on scene operations.	ECSS staff to evaluate and budget finances and time accordingly	Ongoing										
11	67	**Residential sprinklers:** ESCI recommends the fire chief and the fire prevention staff continue to work with all stakeholders to promote increased use of residential sprinklers.	ECSS staff to evaluate and budget finances and time accordingly	Long term (5-10 yrs)										

#	Pg. #	Recommendation	Cost	Timeframe	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
12	78	**Staffing:** ESCI recommends that ECSS monitors staffing levels and take a modernized approach to training that includes advanced adult educational principles, course design and development, and oversight of the varied technical skills and abilities required to meet identified performance standards as approved by Council.	ECSS staff to evaluate and budget finances and time accordingly	Ongoing										
13	83	**Certification and development:** ESCI recommends that ECSS should continue to support and develop all staff to ensure service levels are met and adequate succession planning is considered. ECSS should also ensure that all staff complete and maintain relevant certification.	ECSS staff to evaluate and budget finances and time accordingly	Ongoing										
14	106	**Medical response:** ESCI recommends that ECSS continue their engagement with York Region Paramedic Services and the community to discuss medical response expectations and modify as required.	ECSS staff to evaluate and budget finances and time accordingly	Ongoing										
15	106	**Operational review:** ESCI recommends that ECSS should continue to monitor KPIs, in collaboration with all stakeholders, to determine key trigger points for strategic decisions related to operations are made pertaining to the three lines of defence.	ECSS staff to evaluate and budget finances and time accordingly	Ongoing										
16	123	**Space needs analysis:** ESCI recommends that ECSS should conduct a department-wide space needs analysis to identify potential space requirements as the organization expands. These space needs analyses can be accomplished through consultant projects ahead of a project to help determine potential costs or they can be accomplished during the design phase of project in process.	$20,000 - $30,000 to conduct a study for all three fire stations	Medium term (2-5 yrs)										

#	Pg. #	Recommendation	Cost	Timeframe	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
17	128	**Fleet services:** ESCI recommends ECSS should continue previous report recommendations to determine the feasibility of in-house fleet services as well as joint services with other departments.	Updated costs for a vehicle technician could range from $90,000 to $125,000 including benefits, plus $50,000 to $100,000 in initial resource investments such as tools, maintenance equipment, etc.	Ongoing										
18	131	**Emergency management:** Continue working with York Region on expanding the Emergency Management Program to address specific contingency plans for various hazards, technology improvements and expanding collaborative processes.	ECSS staff to evaluate and budget finances and time accordingly	Ongoing										
19	136	**Automatic Aid/Fire Protection Agreements:** ESCI recommends that ECSS create an automatic aid agreement with Georgina Fire and Rescue Services along Ravenshoe Road and other appropriate areas. Investigate the potential for agreements with other neighbouring communities, such as Bradford West Gwillimbury and Central York Fire Services. These agreements create an opportunity for the closest unit to be dispatched and create quicker responses, establishing higher ERF (effective response force).	ECSS staff to evaluate and budget finances and time accordingly	Short term (0-2years)										
20	142	**Budget:** ESCI recommends East Gwillimbury continue to develop healthy budgets that are consistent with best practices and identify its financial philosophy for these types of expenditures and do future calculations to determine the least likelihood of future capital expenditure adjustments versus having reserve funds available when expenditures are to be made.	Staff time to develop the plan and variable depending on which philosophy/plan is chosen	Ongoing										

#	Pg. #	Recommendation	Cost	Timeframe	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
21	143	**Shared services:** ESCI recommends that shared service opportunities be considered, such as: • Automatic Aid • Special Teams/Technical Rescue • Fleet Services • Training • Fire Prevention and Education • Group Purchasing • Fire Station Sharing • Emergency Management	ECSS staff to evaluate and budget finances and time accordingly	Ongoing										

SECTION 14 – Appendices

- Appendix A - Definitions and References
- Appendix B - Staff Surveys
- Appendix C - Community Surveys
- Appendix D - Public Fire Safety Guideline - Recruitment and Retention of Volunteer/Paid-on-call Firefighters
- Appendix E – Call and Response Data for 2013, 2014 and 2015

Section 14: Appendices

Appendix A – Definitions and References

Automatic Aid Agreements – Fire Prevention and Protection Act, 1997 (FPPA 1997)

1. For the purposes of this *Act*, an automatic aid agreement means any agreement under which,

a) a municipality agrees to ensure the provision of an initial response to fires, rescues and emergencies that may occur in a part of another municipality where a Fire Department in the municipality is capable of responding more quickly than any Fire Department situated in the other municipality; or

b) a municipality agrees to ensure the provision of a supplemental response to fires, rescues and emergencies that may occur in a part of another municipality where a Fire Department situated in the municipality is capable of providing the quickest supplemental response to fires, rescues and emergencies occurring in the part of the other municipality. 1997, c. 4, s. 1 (4).

- *Automatic aid is generally considered in other jurisdictions as a program designed to provide and/or receive assistance from the closest available resource, irrespective of municipal boundaries, on a day-to-day basis.*

Commission of Fire Accreditation International Community Definitions:

- Suburban – an incorporated or unincorporated area with a total population of 10,000 to 29,999 and/or any area with a population density of 1,000 to 2,000 people per square mile
- Rural – an incorporated or unincorporated area with a total population of 10,000 people, or with a population density of less than 1,000 people per square mile.

National Fire Protection Association (NFPA) Documents:

- NFPA 1201 - Standard for Providing Fire and Emergency Services to the Public
- NFPA 1500 – Standard on Fire Department Occupational Safety and Health Program, 2013 editions
- NFPA 1720 – Standard for the Organization and Deployment of Fire Suppression Operations, Medical Operations, and Special Operations to the Public by Career Departments
- NFPA 1720 – Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments.

Municipal Responsibilities (FPPA 1997)

2. (1) Every municipality shall,

a) establish a program in the municipality which must include public education with respect to Fire safety and certain components of Fire prevention, and

b) provide such other Fire protection services as it determines may be necessary in accordance with its needs and circumstances.

Mutual Aid

a) Mutual aid plans allow a participating Fire Department to request assistance from a neighbouring Fire Department authorized to participate in a plan approved by the Fire Marshal.

b) Mutual aid is not immediately available for areas that receive fire protection under an agreement. The municipality purchasing fire protection is responsible for arranging an acceptable response for back-up fire protection services. In those cases where the emergency requirements exceed those available through the purchase agreement and the backup service provider, the mutual aid plan can be activated for the agreement area.

Public Fire Safety Guidelines:

- PFSG 04-40A-12, Fire Prevention and Public Safety Education, Simplified Risk Assessment March 2001
- PFSG 04-41-12, Fire Prevention and Public Safety Education, Community Fire Safety Officer/Team, January 1998
- PFSG 04-08-13 on Fire Station Location, September 2004

Shared Responsibilities (FPPA 1997)

FPPA notes that:

1. Two or more municipalities may appoint a community fire safety officer or a community fire safety team or establish a Fire Department for the purpose of providing fire protection services in those municipalities

Volunteer Firefighter (FPPA 1997)

- Means a firefighter who provides fire protection services either voluntarily or for a nominal consideration, honorarium, training or activity allowance. ("pompier volontaire") 1997, c. 4, s. 1 (1); 2001, c. 25, s. 475 (1)."

Appendix B – Staff Surveys

The following survey was presented to internal stakeholders:

Town of East Gwillimbury Fire Masterplan - Internal Survey

Emergency Management & Training Inc. (EMT) have been hired to prepare a Fire Master Plan for the East Gwillimbury Emergency Services. Your feedback is necessary in assisting EMT in developing this document for the Fire Department. The intent of this document is to provide a 10-year community-driven master plan to guide operational improvements and enhance how services are provided throughout the community.

Please take the time to complete this survey. Your confidential responses will help to ensure focused action that continues to meet the diverse needs of our staff and residents.

Questions:

1. Are you a…:
■ Career/full-time member
□Volunteer Firefighter

2. What are the things that make you most proud of the East Gwillimbury Emergency Services– for example, the level of professionalism, community involvement or making a positive difference within the community?

_____

_____

_____

3. How do you think most people living in East Gwillimbury perceive the Fire Department?

_____

_____

_____

4. What would you say are the top three issues facing the East Gwillimbury Emergency Services today?

_____

_____

_____

5. There are nine core services that the East Gwillimbury Emergency Services delivers. Which services do you believe are most valued by the community? Please rank in order of priority from 1 (most important) to 9 (least important). *Please use each number* ***only once*** *and use all nine numbers.*

_____ Fire fighting
_____ Rescue (motor vehicle)
_____ Fire origin and cause investigations
_____ Fire prevention and safety inspections
_____ Community outreach / Public education
_____ Hazardous materials and technical rescue response (water/ice rescue)
_____ Public assist / Non-emergency responses
_____ Emergency planning
_____ Medical assist and response

6. Are there any other services that you believe the East Gwillimbury Emergency Services should provide and why?

_____
_____
_____
_____

7. What improvements does the East Gwillimbury Emergency Services need to make to its services to be more efficient and what do you believe would be the outcome by implementing these efficiencies?

_____
_____
_____
_____

8. If it were up to you, what would the Department be like 10 years from today and why?

_____
_____
_____

9. Are there any other comments/suggestions that you would like to add that would help to improve the services the East Gwillimbury Emergency Services delivers to the community and to the Firefighters?

- For example: more public education, more training for staff, succession planning, equipment upgrades, etc.

_____
_____
_____
_____

Thank you for completing this survey. Your feedback is greatly appreciated and will help to shape future service delivery efforts.

If you have any questions, please contact:
Lyle Quan lquan@emergencymgt.com

Appendix C – Community Surveys

During the FMP process, feedback was gathered from both the community in the form or an online survey and a meeting with those from the community who have utilized the services of the EGES.

The following survey was presented to the external stakeholders:

East Gwillimbury Emergency Services Fire Master Plan - External Survey

ABOUT US

The East Gwillimbury Emergency Services has a proud tradition of assisting residents and businesses by effectively responding to emergencies.

We are comprised of both full-time and Volunteer Fire fighters, plus an administrative staff complement that includes training and fire prevention officers. Our Department responds to approximately 1,550 emergency calls annually from our three fire stations for medical assists, motor vehicle collisions and structural fires.

EAST GWILLIMBURY EMERGENCY SERVICES FIRE MASTER PLAN

In our ongoing efforts to ensure that we continue to meet the growing needs of the community we serve, we are creating a 10-year Fire Master Plan to help guide operational improvements and enhance our service.

We have engaged Emergency Management & Training Inc. (EMT), to assist us with this initiative. EMT is a local consulting firm that has worked with many Fire Departments to develop their Fire Master Plans, station assessments, and fire service reviews.

YOUR INPUT IS IMPORTANT TO US

As part of this initiative, we are asking East Gwillimbury residents and businesses to fill out our online survey. The survey will take approximately ten minutes to complete. Your identity and responses are confidential. It will be available until midnight on Wednesday, September 7.

Please feel free to contact Lyle Quan with EMT with any questions regarding the survey at lquan@emergencymgt.com

PUBLIC MEETING

A public meeting will be held on November 29th at 7 p.m. in the Council Chambers of the East Gwillimbury Civic Centre, which is located at 19000 Leslie Street, Sharon.

This meeting will allow members of the public to discuss the proposed Fire master plan as well as the survey.

We wish to thank you for your assistance in this very important process.

1. What is your general impression of the East Gwillimbury Emergency Services in relation to its level of professionalism, community safety, education and Fire prevention awareness programs?

_____
_____
_____

2. Have you been approached by East Gwillimbury Emergency Services staff in relation to their Smoke Alarm Program, and if so how did you find this interaction?

_____
_____
_____

3. How important are the following statements to you:

	Extremely important	Very important	Important	Not very important	Not important at all
How quickly the Fire Department gets to me if I have an emergency	☐	☐	☐	☐	☐
Whether the Fire Department will visit my home to give me safety advice and/or fit smoke alarms	☐	☐	☐	☐	☐
How much the Fire services costs me as a tax payer	☐	☐	☐	☐	☐

How well the Fire Department works with other agencies to provide wider community safety services	☐	☐	☐	☐	☐
How often the Fire Department consults me about their services					
How often the Fire Department provides community training opportunities (e.g. Fire extinguisher training; school safety programs; older and wiser program; smoke alarms; Fire escape planning)	☐	☐	☐	☐	☐
How visible the Fire Department is at local community events					
Contacting assistance services after an emergency, as required	☐	☐	☐	☐	☐
Timeliness to any request for services or assistance from the Fire Department					
Purchasing and maintaining new and applicable equipment	☐	☐	☐	☐	☐
Continued and relevant training	☐	☐	☐	☐	☐

4. What do you think are the top three issues facing our Fire service today?

_____

_____

_____

5. There are nine core services delivered by the East Gwillimbury Emergency Services. Which services are most important to you? Please rank in order of priority from 1 (most important) to 9 (least important). *Please use each number **only once** and use all nine numbers.*

___ Fire fighting
___ Rescue (i.e. motor vehicle accidents)
___ Fire/Arson investigations
___ Fire prevention and safety inspections
___ Community outreach / Public education
___ Hazardous materials (i.e. gas or chemical spills) and technical rescue response (i.e. water rescues)
___ Public assistance requests / Non-emergency responses
___ Emergency management and planning
___ Medical assist and response

6. Are there any additional services that you believe should be provided? If so, please specify.

_____

_____

_____

7. Over the next 10 years, if you could implement up to three things to improve how the current services are provided by the East Gwillimbury Emergency Services, what would those things be?

_____

_____

_____

8. Have you directly received service from the East Gwillimbury Emergency Services? (If no, skip to question 10)

☐ Yes
☐ No

9. Could you share some details of your experience and any recommendations for service improvements?

_____

_____

10. Would you be willing to participate in a special focus group to discuss improvements to the Fire service?

☐ Yes
☐ No

11. Please provide your name and contact information so we can get in touch with you about participating in a focus group.

_____

_____

Appendix D – Public Fire Safety Guideline - Recruitment and Retention of Volunteer Firefighters

Volunteer Fire Service Personnel Recruitment and Retention

Public Fire Safety Guidelines	Subject Coding **PFSG 04-84-13**
Section **Fire Administration**	Date **October 2006**

Subject	Page
Volunteer Fire Service Personnel Recruitment and Retention	

Scope and Application:

This guideline provides municipal officials and fire chiefs of volunteer and composite fire services with a general overview of principles to consider in the recruitment and retention of volunteers.

There are many factors that contribute to the success of a volunteer recruitment and retention program. These include implementing organized marketing, recruitment, selection, hiring, training and retention plans.

Establishing and following a formal recruitment and retention program offers fire services the opportunity to increase the likelihood of finding, and keeping, the right people, doing the right tasks, at the right time.

Definition of Volunteer:

According to the *Fire Protection and Prevention Act 1997*, a volunteer firefighter is defined as "a Firefighter who provides fire protection services either voluntarily or for a nominal consideration, honorarium, training or activity allowance. ("pompier volontaire") 1997, c. 4, s. 1 (1); 2001, c. 25, s. 475 (1)."

The majority of fire departments in Ontario (450 out of 478) utilize the services of volunteer fire service personnel. Recognized for their commitment and generosity, saving residents in Ontario more than an estimated one billion dollars annually, these professionals strive to provide skilled, competent and caring service.

Fire services that rely on volunteers to comprise, or enhance, their staffing capability continue to face the challenge of recruiting and retaining a sufficient number of capable and experienced personnel. This impacts on the effective, efficient, safe and timely delivery of fire protection services.

Recruitment and Retention Program:

The Benefits

A coordinated, organized program demonstrates:

- how seriously the leadership takes the services provided and the individuals who provide that service,
- sound risk management principles,
- proactive vs. reactive leadership within the Department, and
- leadership's commitment to recognize volunteers, families and employers who support volunteerism.

It identifies:

- shortfalls and availability of volunteers in the community and,
- the number, type and quality of volunteers required to meet current or future needs.

It allows planning for:

- recruitment and selection,
- retention and succession, and
- training and development of volunteers.

Responsibility for Recruitment

Recruiting and retaining volunteers does take effort. Creating a committee within the municipality and assigning specific tasks can create opportunities for others besides the leadership to contribute to the growth of the fire service and allows for a more concentrated effort.

Annual Recruitment and Retention Plan

An annual recruitment and retention plan is a cyclic, ongoing process that will assist the fire service in planning and focusing its efforts. It should be a logical consideration of the time of the year, changing commitments throughout the seasons, weather, and psychological impact of seasons, milestones in the Department, annual events and other trends. This will prevent the

Department from coming up short in membership by not having good candidates to replace those leaving.

Policies and Guidelines

Fire service leaders benefit from having the necessary policies and procedures to ensure a safe, lawful, organized, empowering, non-discriminatory environment for their volunteers. No matter how large or small a Department, policies and operating guidelines are essential management tools that set the standard for conduct and provide guidance for action. It is suggested that existing municipal policies, if available, be referenced.

Evaluation

Evaluation of the recruitment and retention program is necessary to identify strengths and areas to improve. It is an ongoing process that is built into all the components of the program.

Components in the Recruitment and Retention Cycle:

Pre-Recruitment

Prior to recruiting, it would be beneficial to conduct a needs assessment to determine the role and number of volunteers required. Completing a Community Profile will determine community members who may best fit those roles. Answering these questions prior to recruiting enables the fire services to target specific individuals for specific roles and may increase the chance of success.

Recruitment

To promote diversity and involve volunteers with different skill sets, knowledge and perspectives, more than one recruitment method is necessary. Regardless of the method and

knowing the Department is seeking the best possible candidates, effective marketing and communication strategies are necessary to draw the interest of potential volunteers.

Selection and Hiring

Once received and acknowledged, all applicants require screening to determine those who will move on to the next step in the hiring process.

The Fire Service takes great pride in service to communities. A screening process is essential to demonstrate that the volunteers serve in the community's best interest. The leadership will have to decide which screening methods and tools are appropriate for their Department and should ensure that they reflect human rights and privacy legislation and existing municipal policies.

Upon selection, a written agreement between the volunteer and the fire department will ensure that expectations and responsibilities for each side are clearly identified and agreed to.

Orientation and Probation

Fire Departments and their volunteers will benefit from having an organized system to orient, train and advance recruits. One of the most successful and safe approaches for developing volunteers and establishing a commitment is to initially offer specific tasks that allow them to become involved in a limited way, followed by opportunities to grow into a role with more responsibilities.

Ongoing Recruitment Efforts

Successful recruitment efforts should be ongoing throughout the year to ensure that there is a waiting list of interested individuals to draw from.

Ongoing Retention Efforts

Recruiting and training new volunteers is just the beginning. The long-term challenge is to create an environment in which individuals continue to be motivated, interested, challenged, supported and satisfied with the work they've accomplished. Factors that contribute to this environment include leadership practices, operating guidelines, recognition initiatives, support efforts, teamwork and fellowship.

Exit Processes

When an individual leaves the fire department, it is a good opportunity to solicit input to determine the department's strengths and opportunities for improvement. Exit processes should reflect understanding that, whether leaving on a positive or negative note, the volunteer and the fire department deserve fair and respectful treatment.

Resource Book:

The Application of Recruitment and Retention Principles:

The Volunteer Recruitment and Retention Resource Book that supports this guideline, was developed by the Ontario Fire Marshal's Office, in collaboration with representatives from the Ontario Fire Service.

This resource describes effective practices and strategies for recruitment and retention of Volunteer Fire Service personnel. It also provides a compilation of tools and templates that can be used to support the best practice or strategy. These may be photocopied or edited to meet the needs of the individual Fire Service.

A CD-ROM and printed copy of this resource has been made available to all Fire Services that maintain a Volunteer complement. It can also be accessed and downloaded from the Ontario Fire Marshal's public access website http://www.mcscs.jus.gov.on.ca/.

Codes, Standards & Best Practices:

Codes, standards and best practices resources are available to assist in establishing local policy. All are available at http://www.mcscs.jus.gov.on.ca/.

Volunteer Resource Management:

The following resources and links describe effective practices and strategies for Volunteer Resource Management. The principles and topics can be applied to the fire service.

The Canadian Code for Volunteer Involvement http://www.Volunteer.ca
HR Council for the Voluntary and Non-Profit Sector http://www.hrvs-rhsbc.ca Knowledge Development Centre, Canada Volunteerism Initiative http://www.kdc-cdc.ca

Additional References:

See also:

Office of the Fire Marshal's Public Fire Safety Guidelines

The following guidelines can be referenced when conducting a needs assessment to determine the role, quantity and characteristics of volunteers required by the fire service.

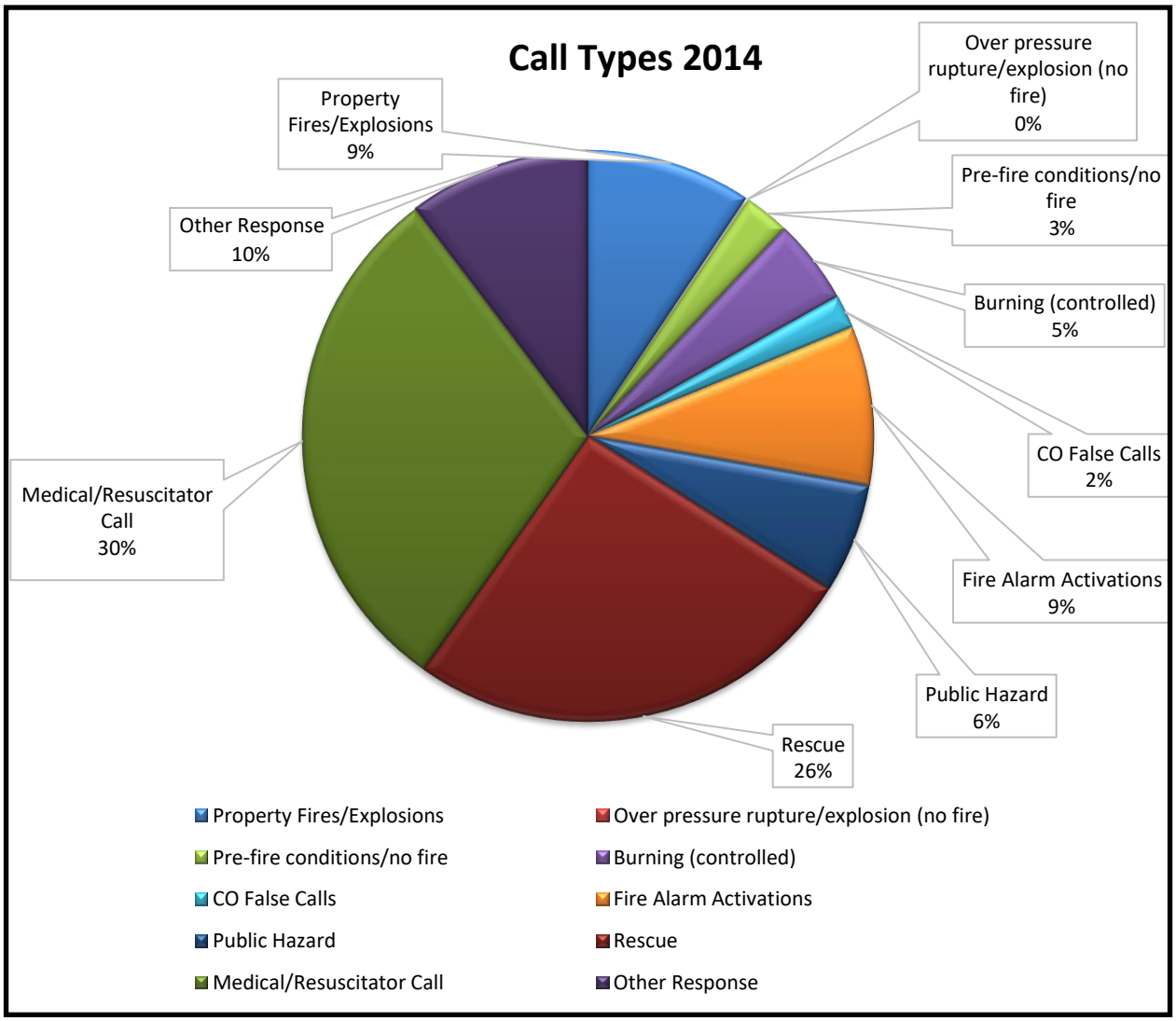
04-08A-03 Optimizing Rural Emergency Response

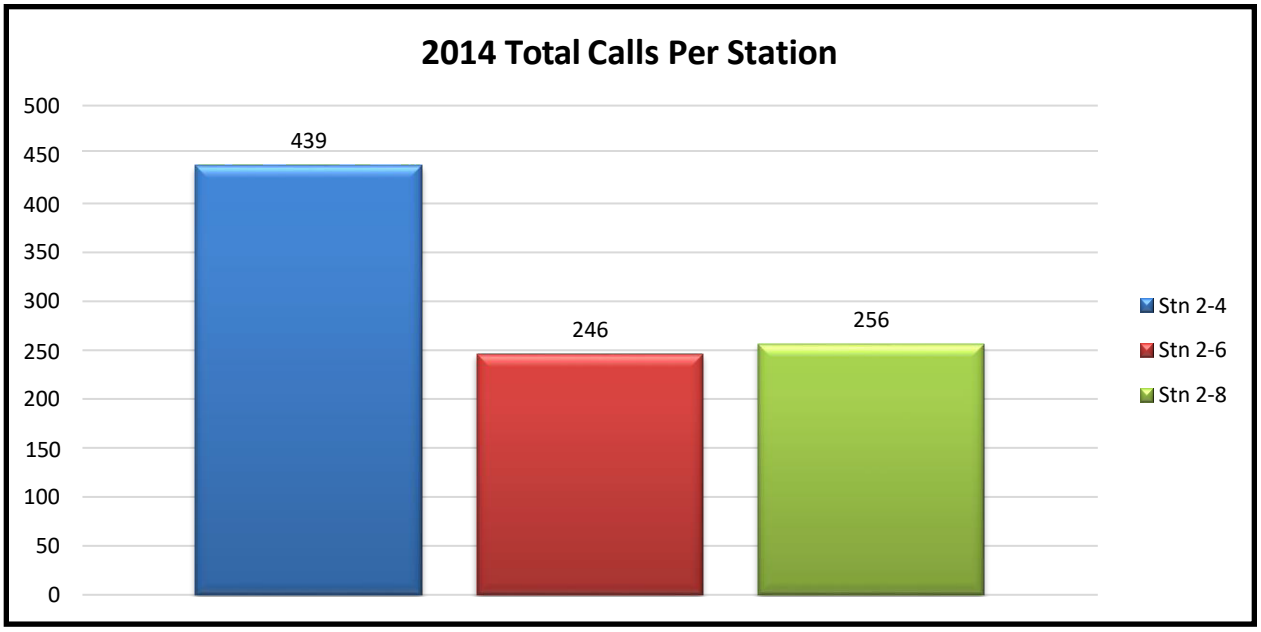
04-12-13 Core Services (Response and Support) and Associated Guidelines

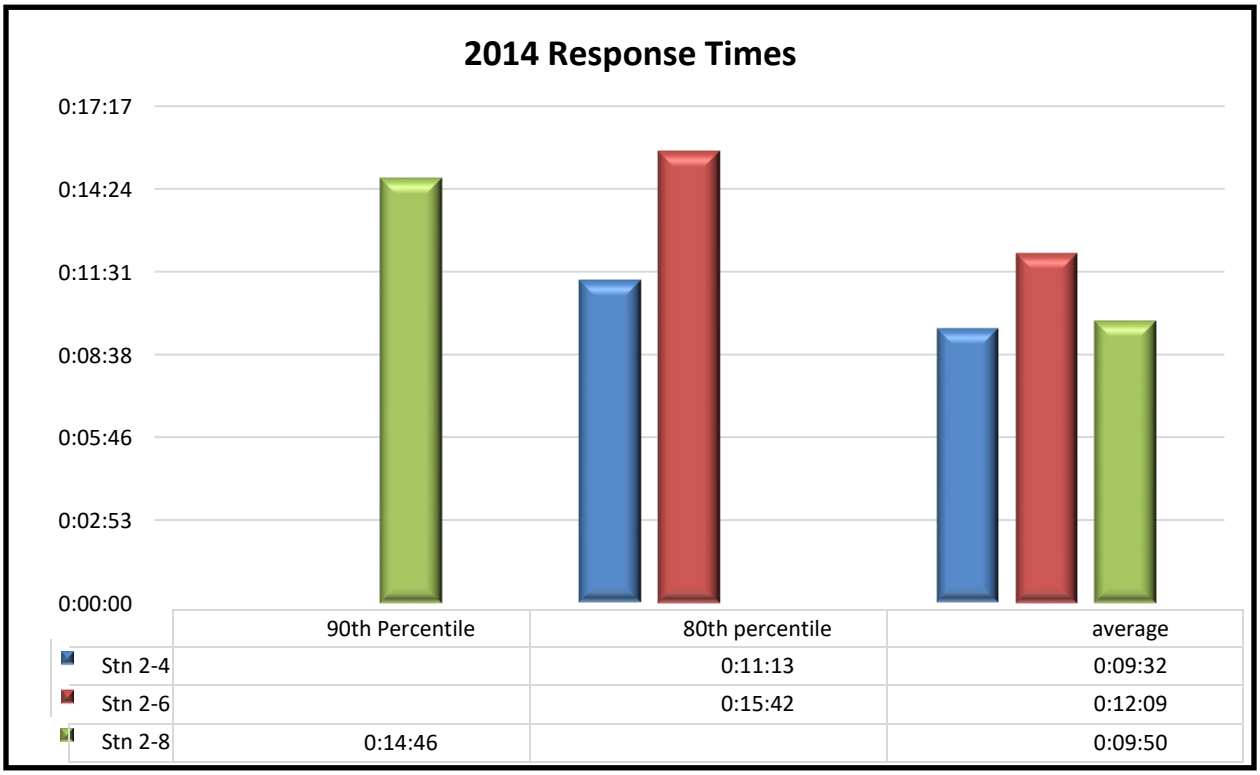
04-40A-03 Simplified Risk Assessment

Appendix E – Call and Response Data for 2014 and 2015

2014 Calls and Response Data

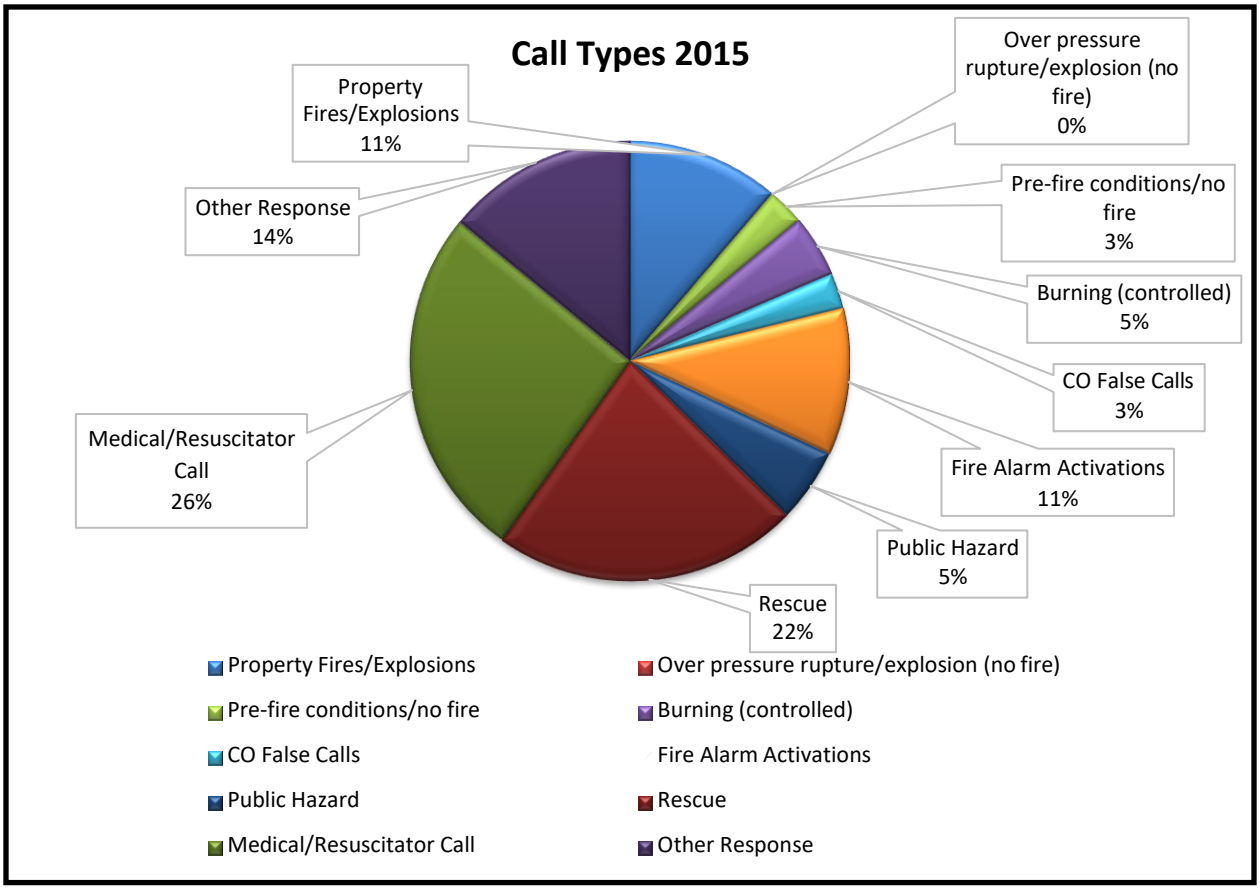


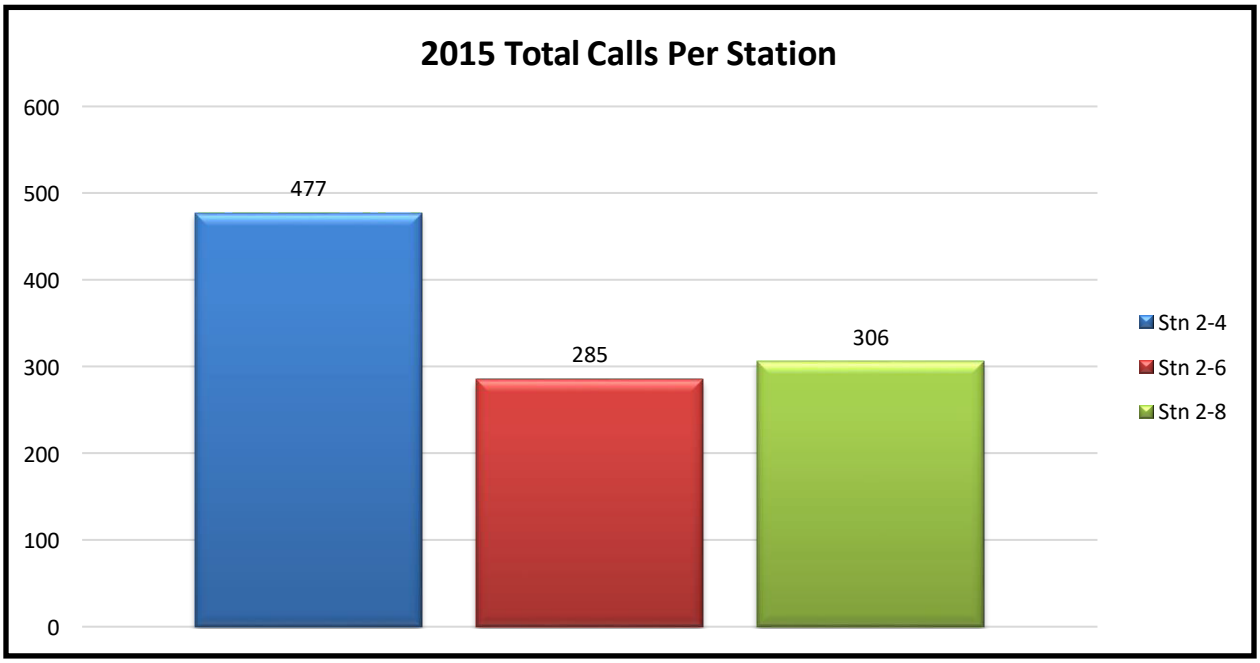


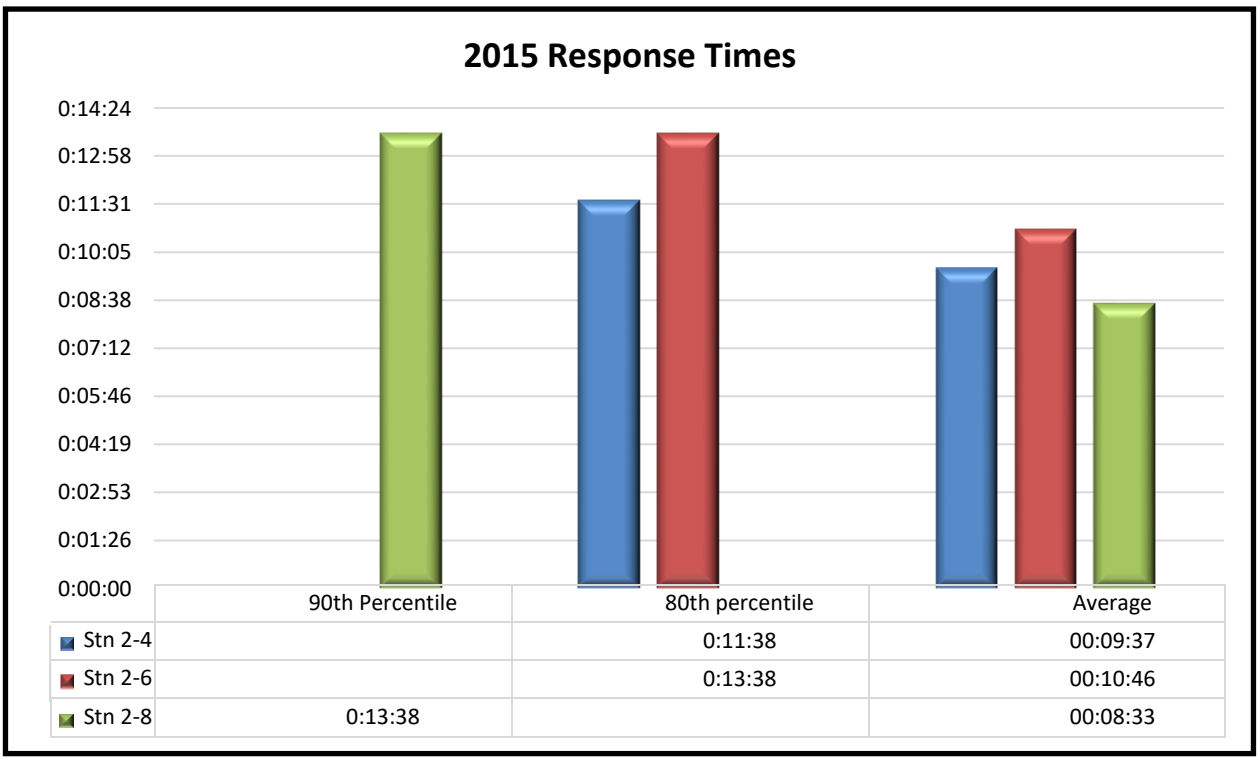


	90th Percentile	80th percentile	average
Stn 2-4		0:11:13	0:09:32
Stn 2-6		0:15:42	0:12:09
Stn 2-8	0:14:46		0:09:50

2015 Response Data







	90th Percentile	80th percentile	Average
Stn 2-4		0:11:38	00:09:37
Stn 2-6		0:13:38	00:10:46
Stn 2-8	0:13:38		00:08:33