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# **FIRE MASTER PLAN**

## **September 30, 2022**

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## **Acronyms**

AA	Administrative Assistant
APP	Software Application
C.A.O.	Chief Administrative Officer
CEMC	Community Emergency Management Coordinator
CO	Carbon Monoxide
DC	Deputy Fire Chief
E&R By-Law	Establishing & Regulating By-Law
EOC	Emergency Operating Centre
ESSSi	Emergency Services Strategy and Solutions Inc.
FF I & II	Firefighter I & II
F.P.P.A.	Fire Protection and Prevention Act
FPPEO	Fire Prevention Public Education Officer
FUS	Fire Underwriters' Survey
KPIs	Key Performance Indicators
MVC	Multiple Vehicle Collision
N.F.P.A.	National Fire Protection Association
NG911	Next Generation 911
O.F.M.	Office of the Fire Marshal
OH&S	Occupational Health and Safety
O'Reg	Ontario Regulation
S.O.G.	Standard Operation Guideline

## Scope

Emergency Services Strategy and Solutions Inc. (ESSSi) was engaged to perform a Fire Master Plan (FMP) for the Town of Plympton-Wyoming Fire and Emergency Services (Plympton-Wyoming) that addresses the current state of the department and will look at the needs of Plympton-Wyoming Fire and Emergency Services with respect to the growth of the Town out ten (10) years to 2032.

The development of a Fire Master Plan utilizes a multi-streamed approach to formulate the bases for an effective plan. ESSSi used the new Community Risk Assessment, the Fire Prevention and Protection Act (1997), which "*mandates that every municipality in Ontario shall establish a program which must include public education with respect to fire safety and contain certain components of fire prevention and provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances. In the fire service, these elements are referred to as the Three Lines of Defense; public fire safety education, fire safety standards, and enforcement and emergency response.*"<sup>1</sup>, industry best practices, interviews, and documentation provided by Plympton-Wyoming Fire and Emergency Services.

ESSSi interviewed fourteen people from Plympton-Wyoming, which included the C.A.O., Fire Committee Chair, Clerk, Treasurer, Director of Planning (Public Works), Fire Chief, two District Fire Chiefs and six captains/firefighters, to gather information on the current state of fire services, facilities, and equipment, as well as what the future state may look like from staff's perspective.

It must be stated at the onset of this report, from the interviews performed, the staff of the Plympton-Wyoming fire department are dedicated to the community they serve as volunteer firefighters. Plympton-Wyoming fire, however, is not without its struggles. ESSSi did find a number of issues that will be addressed in detail further in the report but warrant mentioning in the opening of the report.

Plympton-Wyoming Fire's level of data collection has been a challenge for ESSSi. Currently, there are multiple areas of detail that are minimal at best and contradict other reports generated from the records management software. The data received for emergency responses was insufficient to accurately analyze the response capabilities and the assembly of a proper fire attack team. From the data, ESSSi was able to produce mapping exercises for the first apparatus to arrive on scene at various response locations for the years 2017 through 2021, computer-generated response travel time coverage based on road network travel speeds for each fire station, the automatic aid from the Forest station, the Warwick station and future modelling of a potential new station location.

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<sup>1</sup> O.F.M. Community Risk Assessment Guideline O.F.M. TG 02-2019

Plympton-Wyoming is currently falling short of the requirements under the Fire Protection and Prevention Act (F.P.P.A.) and the Establishing and Regulating By-Law (E&R By-Law) with respect to Fire Inspection and Public Education. The gap exists due to the absence of a certified Fire Inspector to perform fire inspections as per the fire code, and currently is not meeting the level of service identified in the E&R By-Law. It is important to note that during the interviews, there seems to be a passive approach to enforcement of the fire code and a preference for education versus enforcement of the code. The Town of Plympton-Wyoming should work with the Fire Marshal's Office to deliver a Municipal Officials Essentials of Fire Protection Seminar for Council, Senior Administration and Fire Management so that the council members and senior staff understand their obligations and personal liability for the delivery of public fire protection and firefighter safety.

**1. Recommendation: The Fire Chief works with the Ontario Fire Marshal's Office to deliver a Municipal Officials Essentials of Fire Protection Seminar for Council, Fire Board members and senior town staff.**

The Town of Plympton-Wyoming is an amalgamated Town which blended the Township of Plympton and the Village of Wyoming in 2001, except for the fire services. Fire was later amalgamated into one entity in 2017 and was not without its struggles to merge long-standing identities, pride, and ownership of the stations of Wyoming and Camlachie. To date, for the most part, the blending of the two entities has been successful. Plympton-Wyoming should continue to work at removing any differences that are perceived to exist with staff to ensure the department feels and operates as one department.

As a result of an overall review, ESSSi makes the following recommendations for the Council's consideration and implementation over the term of this Fire Master Plan (2022 – 2032)

## **Administration**

A review of By-Law 12 of 2017, being a By-Law to Establish and Regulate a Fire Department and By-Law 14 of 2017, being a By-Law to Establish Fees for the Plympton-Wyoming Fire Department was conducted. The Council should review the E&R By-law regularly to confirm that the fire service meets the community's needs and reflects the current approved level of service. The review and change in service level should be informed, at least in part, by considering the Community Risk Assessment and the recommendations contained in this Fire Master Plan. The organizational structure should reflect all roles and responsibilities and always conform to the approved organizational chart.

**2. Recommendation: The Fire Chief review and update the Establishing and Regulating By-Law to reflect the “Council Approved” Level of Service and activities as informed by the Community Risk Assessment and Fire Master Plan.**

The Plympton-Wyoming Fire and Emergency Service is managed by a Fire Chief and supported by a shared part-time Administrative Assistant and two volunteer District Chiefs. The Fire Chief is the designated person with the expertise and skill set to lead the fire service while maintaining a strong presence in the community. The Fire Chief is ultimately responsible to Council, through the Chief Administrative Officer, as set out in subsection 6(3) of the Fire Protection and Prevention Act, for the proper administration and operation of the Fire Department, including all Fire Department functions and programs. The Fire Chief shall be deemed the Chief Fire Official of the municipality for the Fire Protection and Prevention Act and regulations enacted there under and shall have all statutory authority and shall carry out all prescribed duties and responsibilities in respect thereof. The Fire Chief is responsible for complying with all Fire Marshal's directives as mandated by the Fire Protection and Prevention Act. Each Fire Department division is the Fire Chief's responsibility and is under the direction of the Fire Chief or a member designated by the Fire Chief. Designated members shall report to the Fire Chief on divisions and activities under their supervision and shall carry out all orders of the Fire Chief.

The current job responsibilities of the Fire Chief are extensive, and he manages many portfolios, including Fire Chief, Fire Prevention, Training, Community Emergency Management Coordinator, and the overall management of the Plympton-Wyoming Fire department. The Chief is tasked with hands-on job functions for some of these portfolios and providing 24-hour on-call coverage for emergency events.

There has been a growth in administrative requirements within the fire service, and there is a need for a clear picture of the roles and responsibilities of the positions that manage the department. With the day-to-day responsibilities, there is a need to increase organizational depth, thereby creating time for senior management to focus on a strategic planning process and create short, medium, and long-term goals supported by implementation plans.

**3. Recommendation: The Town of Plympton-Wyoming updates job descriptions for Fire Chief, Administrative Assistant, and District Chiefs.**

The administrative processes which determine what tasks and how they are to be completed on a daily, monthly, quarterly, and yearly basis contain mission-critical tasks essential to the operation of the fire department. As noted in Schedule A of the Fees By-Law, the collection of fees requires administrative assistance to perform this task

consistently. Currently, these tasks are performed by the Chief, Districts Chiefs, with some support from a shared Administrative Assistant (AA). For business continuity purposes and fee collection, the information on all processes should be documented and put into a standard operating policy or procedure document and be reviewed annually and amended where necessary to maintain currency.

Some additional tasks that the administrative team needs to consider include:

- The preplanning of buildings. Current preplans should be updated, new ones created, and a process to get this information to the responding crews on mobile devices needs to be completed. Regular reviews and updates of preplans should be scheduled.
- Standard Operating Guidelines (S.O.G.) – All but one guideline reviewed dated back to 2017. Guidelines need to be reviewed and revised on a regular schedule. A yearly plan to review all S.O.G.s to achieve a complete review over a five-year cycle is recommended.
- Regular meetings within the fire department require administrative support. Meetings of the management team, district chiefs, training, operating guideline committee and Health & Safety committee, for example, all require meeting minutes and assigned tasks so they can be tracked and regularly reviewed for completion.
- A formal filing system for the senior management team that meets the Town's requirements should also be established for ease of document retrieval.

**4. Recommendation: Plympton-Wyoming Fire documents all administrative processes and creates Standard Operating Policies and Procedures for all administrative functions.**

The Fire Department budget while appearing as one document is still being administered as two budgets by the Fire Chief. This leads to inefficiencies in the purchasing process and duplication of costs. This practice complicates the overall administration of the budget by the Fire Chief.

**5. Recommendation: The Fire Department budget be centralized and administered by the Fire Chief.**

The province of Ontario, over the past ten years, has downloaded a substantial number of responsibilities to the municipal level to streamline and downsize its government and processes, which have increased the responsibility and tasks that each fire chief is responsible for. The growing and changing scope of the fire service is a result of the province's closure of the Ontario Fire College, increased training and certification requirements for firefighters, officers, and chief officers, and community risk assessments. There is no end in sight as the provincial government, through the Ontario Fire Marshal's Office, has and is creating additional responsibilities and



workload of each fire department.

The workload of the Administrative Division will continue to increase as the Town and the Fire Department grow with the demands for expanded services. The pressure from growth will drive the requirement for increased public education and fire prevention, inspection, enforcement, and an increase in call types and call volume. Growth is expected to continue creating additional administrative workload for the fire department. Currently, the Chief is the only full-time position at Plympton-Wyoming Fire. To manage this workload, consideration should be made to establish two Deputy Chief positions as follows:

- a. Deputy Fire Chief, Protective Services & Prevention
- b. Deputy Fire Chief, Training and Operations

This organizational structure is consistent with other similar-sized departments. These positions can be part-time or full-time, depending on the municipalities needs.

Developing a robust command structure will provide operational depth and allow the Fire Chief to fulfill administrative responsibilities, maintain visibility at community events and facilitate open communications with elected officials.

**6. Recommendation: The Town of Plympton-Wyoming creates two Deputy Fire Chiefs positions to increase the depth of the fire management team.**

The Service Delivery Review report by Whitesell & Company that went to Council in February 2021 recommended the addition of a dedicated Fire Administrator who would design data workflow processes and accountability to keep the department current. Whitesell & Company's main challenge in the service delivery review was "the difficulty in accessing fire-related data and determined that no one is designated and fully responsible in the stations for doing the electronic impute of incidents, accidents, hazard identification time allocation etc."<sup>2</sup>. During this review for the FMP, there still exists a lack of good data with respect to fire-related information.

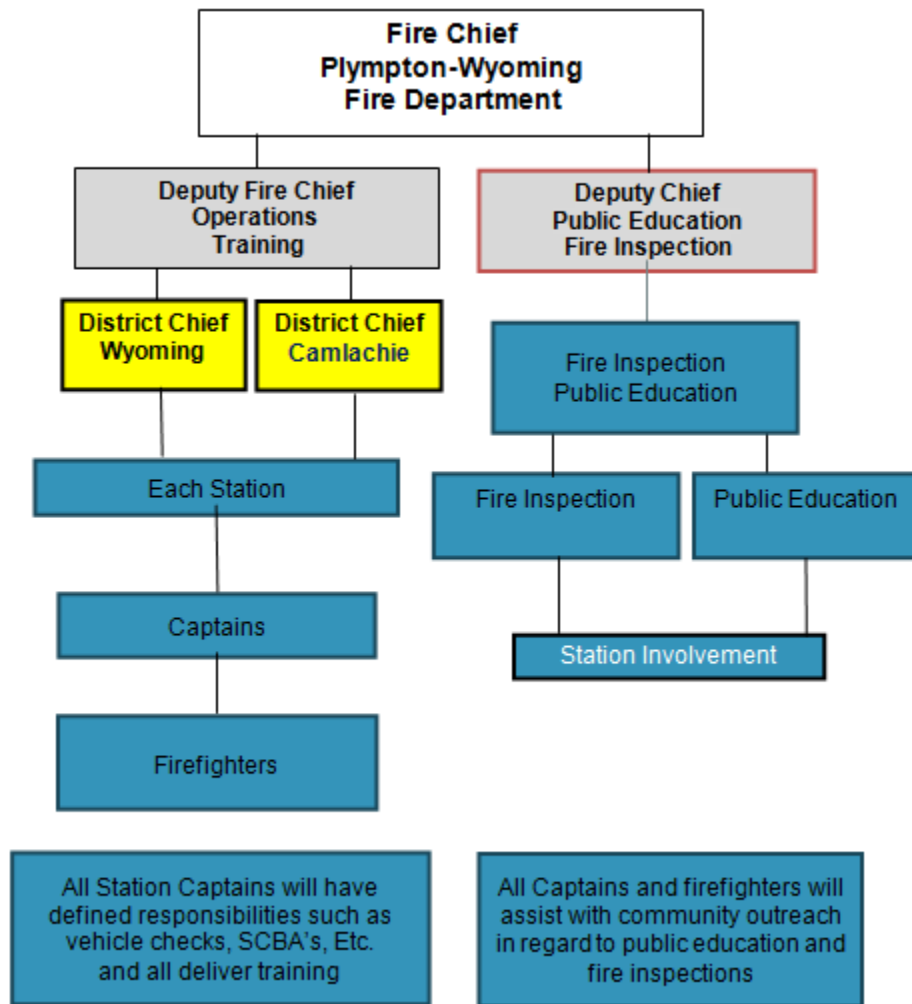
A dedicated part-time administrative assistant with a minimum of 25 hours a week is needed to add to the fire administration team. This should be reviewed yearly, with this position transitioning into full-time as the workload increases.

**7. Recommendation: A dedicated part-time Administrative Assistant position is created at Plympton-Wyoming Fire for at least three days a week with a yearly review of workload requirements.**

The following chart depicts a proposed organization chart with the recommended additions for the administration team with their respective flow-through of job responsibilities.

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<sup>2</sup> Service Delivery Review, Whitesell & Company, Inc. February 2021



The benchmarking of any given municipal service is a practical way to find out how they are doing, trends in their business, and potential ways to improve on how and what they are doing. The Fire Prevention and Protection Act 1997, Regulation #377-18, also requires the municipality to publicly report how the fire department performs by setting and reviewing annually Key Performance Indicators (KPI) as approved by Council. The KPIs will track the department's business activities and performance to determine effectiveness and efficiency. Gathering the necessary data to provide the statistical analysis to correlate it into a KPI is the key to providing useful information for the Council and the public on how each fire department division is performing. During this review, data containing benchmarks was not readily available.

- Recommend improving statistical data gathering:
- Recommend establishing and gathering data benchmarks. These are:
  - Dispatch times
  - Turnout times

- Travel times
- First apparatus on scene
- Including the number of firefighters on board
- Arrival and establishment of fire attack teams
- Plympton-Wyoming response times as compared to N.F.P.A. 1720

**8. Recommendation: The Fire Chief should establish Key Performance Indicators for each division's activities for Council's review and approval and regularly report on these KPIs.**

**9. Recommendation: Staff report any gaps that can affect the meeting of the benchmarks once the KPIs are established. This will improve future activities in all divisions.**

The Town of Plympton-Wyoming Service Delivery Review final report, as presented to Council on February 27, 2021, recommended that Plympton-Wyoming Fire develop a reliable system for data and tracking. During this review, complete data was not easily retrieved or available. The fire department uses Fire Pro software primarily for some suppression records only.

Fire Pro software can be a powerful tool when staff are trained, and procedures are implemented for its use. Additional training should be obtained to maximize the current software used by Plympton-Wyoming Fire. More than one person should be familiar with the records management system so that all the knowledge and work does not fall to one person.

A minimum criterion for information required and stored in FirePro should be established. Fire reports should always include officers' notes to expand and explain what type of call they went to and what they did on the scene.

FirePro is sold in modules that can manage many distinct functions for a fire department. Enhancing the use of the current software and, if required, investigating the possibility of adding additional modules will facilitate ease of data gathering and provide efficient reports. The responsibility for data entry in future modules would be spelled out in specific job descriptions as the modules are released.

**10. Recommendation: The Fire Chief investigates further opportunities to use software to automate all divisions.**

## **Communications**

The Town of Plympton-Wyoming is currently part of the fire radio communications system with the County of Lambton, which provides operating fire frequencies. The Town of Plympton-Wyoming is under contract with Wallaceburg Central Ambulance Communications Centre to dispatch their emergency calls. Currently, crews are initially dispatched, but then dispatchers are no longer in constant contact with the fire crews operating at an emergency scene, and call logging is not occurring at the dispatch agency. Fire officers need to be able to contact fire dispatch from an emergency scene to request further assistance and resources, which is usually accommodated by the current provider.

Fire Officers must carry two portable radios—one to contact the dispatch centre and another to use as a fire ground operations radio. The use of two radios not interconnected is not a recommended practice. The dispatching agency should provide communications assistance at every fire response, ensuring fire ground radio transmissions are received and acknowledged.

The National Fire Protection Association (N.F.P.A.) is a nonprofit organization that aims to save lives and reduce loss by applying its codes and standards. Their standards have become the benchmark that most municipalities measure to. The dispatching of emergency calls has two standards: N.F.P.A. 1061 and 1221. N.F.P.A. 1061 is a standard that is the certification of the dispatchers in their job performance, and N.F.P.A. 1221 is the standard for the efficient call taking and dispatching of emergency calls. Both standards are best practices for the dispatching of fire services. As these standards combine to N.F.P.A. 1225 over the next several years, dispatch agencies should continue to update their procedures and training to reflect any ongoing changes to these best practice documents.

Providing a dispatch centre that meets the intent of N.F.P.A. 1221 should be engaged. A dispatch centre should be able to provide services described in this N.F.P.A. 1221. With the new Next Generation 911 (NG911) requirements starting in 2022, every communications centre must be ready to transition to this new platform.

As a minimum, requirements a fire dispatch centre should provide:

- Communications systems, computer systems, staff, and facilities to be used for both emergency and non-emergency functions
- Each centre should have a primary and secondary location
- Telephone receiving equipment
- Dispatching systems installed, operated, and maintained to receive and retransmit telephone and radio transmissions on dispatching and operating frequencies.
- Computer Aided Dispatching system to consistently provide the desired response

of each fire service

- Voice Logging Equipment – logging all telephone calls and radio transmissions is required. This must include the associated date, time, and channel with each transmission.

**11.Recommendation: Plympton-Wyoming purchase dispatching services that meet the intent of N.F.P.A. 1221.**

**12.Recommendation: The dispatch agency have communicators with N.F.P.A. 1061 certification.**

**13.Recommendation: The dispatching agency provides statistical reporting at least yearly to reflect their N.F.P.A. 1221 call answer and dispatch percentages per N.F.P.A. 1221.**

## **Public Education and Fire Prevention**

The Fire Prevention and Protection Act (1997) states "*that every municipality in Ontario shall establish a program that must include public education with respect to fire safety and contain specific components of fire prevention and provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances. In the fire service, these elements are commonly referred to as the Three Lines of Defense; public fire safety education, fire safety standards, enforcement, and emergency response.*"<sup>3</sup> The cornerstone of every municipality's fire and life safety program should be proactive public fire safety education and fire safety standards and enforcement programs. These two cornerstones are the only proactive way to help mitigate fires, injuries, and fatalities. Emergency response, albeit necessary, is usually when everything else has failed or been ignored and results in a citizen's worst day. By providing a proactive public education program and an aggressive regular inspection schedule, the Town will help educate its citizens and identify fire safety issues before a fire occurs.

The Town of Plympton-Wyoming is growing and will continue to grow as people leave the suburban areas for a less busy lifestyle, and the ability for remote work becomes more the norm. The expectation is the demand for service will grow as the community grows with the influx of people and businesses.

Public education is the first step in the Three Lines of Defense and is fundamental to providing fire protection services and a fire-safe community. Public Education Programs must meet the minimum requirements of the Fire Protection and Prevention Act (F.P.P.A.). Examples of public education programs include smoke and CO alarm

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<sup>3</sup>O.F.M. Community Risk Assessment Guideline O.F.M. TG 02-2019

awareness and home fire escape plans. These programs can be tailored to meet the needs of Plympton-Wyoming. The current Plympton-Wyoming Council-approved level of service for Public Education is to provide Smoke Alarm and CO Alarm program, Vulnerable Occupancy Program, Lectures, Demonstrations and Presentations to the Public, Distribution of Public Fire Prevention and Fire Safety information and Fire Prevention and Fire Safety Media Releases and Public Notices.

One area Plympton-Wyoming Fire is currently falling short of the Council-approved level of service is with a dedicated Smoke/CO Alarm program. Smoke/CO alarms are mandatory in the Province of Ontario, and the building code addresses this requirement during the construction phase of new construction. However, the older buildings built before the mandatory requirements came into effect present the issue of non-compliance, where fire and life safety is at the highest risk. A formal, proactive Smoke /CO alarm program educates its citizens and seasonal visitors to ensure they have working smoke and CO alarms in their homes, cottages, or recreational vehicle, as well as semiannual testing of the alarms is the foundation of a good program. Assistance for Smoke/CO programs is available through "Safe Community Project Zero," a public education campaign that has helped provide over 16,600 alarms to those in need in seventy municipalities across Ontario. Additional assistance can be obtained through donations from large utility companies that have partnered up with the Ontario Fire Service.

**14. Recommendation: A proactive Smoke/CO Alarm program for the Town of Plympton-Wyoming be established.**

The Town currently has two facilities that meets the definition of a vulnerable occupancy and Plympton-Wyoming has an apartment building in which most of the residents are seniors. Special programming should be dedicated to fire safety education for residents who reside in these buildings and those who live throughout Plympton-Wyoming.

Through information gathered and interviews, Plympton-Wyoming Fire is very good at attending public events and promoting fire safety. However, additional Public Education programs will go a long way to improve fire and life safety in the community and help prevent future fires. Examples are,

- a. A public awareness campaign should be created for heating appliances, chimneys, and flues and the design, construction, and maintenance of fire-safe appliances and best practices.
- b. A public education program for seasonal residents. Continued bold public education programming about smoke and carbon monoxide alarms, home/cottage escape plans, and the use of fire extinguishers. The continued reminder of the use of municipal numbers or other location-identifying applications
- c. An outreach of fire safety through community events targeted to seniors and youth. Take advantage of shared opportunities such as fairs,



community events and Fire Prevention Week, public fire safety education, and clinic opportunities directed at seniors, particularly as they continue to be mobile longer; education topics should continue to include:

- smoke and CO alarms
  - developing and practicing a home escape plan for their residences
  - safe cooking practices
  - how to extinguish grease fires
  - how to operate an extinguisher
  - burn prevention – not moving pans or pots of burning grease
- d. A school outreach program where fire safety education can be delivered to the students. Take advantage of opportunities such as youth group meetings to provide public fire safety education and clinic opportunities directed at youth; continue to include:
- importance of smoke and CO alarms
  - developing and practicing a home escape plan for their residence
  - show how to operate a fire extinguisher
  - burn prevention – not moving pans or pots of burning grease
- e. An annual educational discussion with the community emphasizes the three lines of defence. Continue to speak publicly about the three lines of defence so the community will understand the need for public education programming. The further the travel distance, the greater the Plympton-Wyoming Fire response time.
- f. Work to promote the benefits of residential sprinklers with all area builders. Plympton-Wyoming fire should meet with area builders annually to remind them of the value of residential sprinklers. The Council should consider putting the requirement for residential sprinklers in all new subdivision agreements.
- g. Conduct an annual review of all inspection and public education programs along with the 01 buildings-fire data to plan future inspections and public education messages. Directed public education programs focusing on cooking practices, dangers of grease fires, and loose clothing catching fire near stoves. Identify the risks associated with unsafe housekeeping practices, the failure to maintain wood-burning appliances, and the need to clean flues and vents regularly.
- h. A public awareness campaign should be created for heating appliances, chimneys, and flues and the design, construction, and maintenance of fire-safe appliances and best practices.
- i. A farm fire/electrical safety public education campaign. Much of the township is currently comprised of rural farms. To reduce the potential of a fire and the subsequent loss of life, livestock and business, a farm/electrical safety campaign should be initiated to help promote safer farms.

**15.Recommendation: Additional Public Educations programs should be implemented to assist in improving fire and life safety in the community.**

Fire inspections are a vital component of fire and life safety in a community and a core requirement in the second step of the "Three Lines of Defense" model. The F.P.P.A. mandates fire inspections to be conducted "On a request" or "By Complaint." Specific regulations require other inspections.

Currently, Plympton-Wyoming's Council-approved level of service for Fire Inspection is on a complaint and request basis. Based on the information gathered and interviews conducted, Plympton-Wyoming Fire is not meeting the intent of the F.P.P.A., and Council's level of service as set out in the E&R By-Law 12 of 2017. The main driver of this shortfall is not having a qualified/certified fire inspector to N.F.P.A. 1031 to perform the fire inspection requirements under the Fire Code. The Fire Chief and District Fire Chiefs are also designated as an Assistant to the Fire Marshal and, in such a role, are responsible for following the Fire Marshal's directives in carrying out the Act (F.P.P.A.). The Fire Chief does not have to be the one certified to perform these inspections; however, the Town of Plympton-Wyoming must provide the "requested" or "complaint" inspections by a certified fire inspector. This can be achieved through a couple of options; the Fire Chief becomes certified or implement recommendation #5 where the new Deputy Fire Chief of Protective Services and Prevention provides the services or contract out the inspection activity to another surrounding municipal fire service that is certified to perform the inspections or contract a company to perform this service.

**16.Recommendation: The municipality ensures the Fire Chief or the Deputy Fire Chief Certification to N.F.P.A. 1031 or certified inspection services are contracted to meet the intent of the F.P.P.A. and the E&R By-Law 12 of 2017.**

In addition to the request and complaint inspections, the Office of the Fire Marshal has identified specific occupancies that need to be inspected and the recommended frequency of the fire inspections.



Type of Occupancy	Frequency
<b>Assembly</b>	
Schools & Churches	Annually
Nursery/Day Care facilities	Annually prior to licensing
Licensed premises	Twice annually (once in December)
Unlicensed premises	Annually
<b>Institutional</b>	
Hospitals	Annually
Nursing Homes	Annually
Homes for Special Care	Annually prior to licensing
<b>Commercial &amp; Business</b>	
In service mercantile	Every other year
Comprehensive mercantile	Every third year
Business / personal services	Upon request/complaint
<b>Industrial</b>	
Factories / Complexes	Annually
Industrial malls	Every other year
<b>Residential</b>	
Apartments – 6 units or more	Annually
Single Family duplexes & apartments up to six units	Upon request or complaint
Home inspection program	Voluntary – every third year
Boarding / lodging houses / B&B's	Annually prior to licensing
Hotel / motels	Annually

Table 1 O.F.M. Recommended Inspection Cycles

To improve the fire and life safety for the citizens and businesses in the Town of Plympton-Wyoming and improve their due diligence, the Plympton-Wyoming Council should adopt the O.F.M. inspection frequency as their level of service once Plympton-Wyoming has achieved obtaining a certified Fire Inspector (N.F.P.A. 1031).

**17. Recommendation: The Fire Chief recommends to Council an increased level of service to the recommended Fire Inspection frequency as outlined by the O.F.M. (Table 1) immediately upon the Fire Department achieving certification to N.F.P.A. 1031.**

To achieve proactive public education programs and the recommended O.F.M. regular inspection schedule, a full-time Fire Prevention Public Education Officer (FPPEO) must be certified to N.F.P.A. 1031 and 1035. This position could be combined with the Deputy Chief's (DC) position as previously recommended during the transition years. Still, the DC candidate must have the necessary Fire Prevention Public Education qualifications. The FPPEO will continue to require assistance from the front-line firefighters in delivering the public education programming. The position of FPPEO can also fill the current gap in fire cause determination. The cause of fires is an essential piece of information for a department to have and review annually. This information assists in planning the Public Education program for the following year. If there are any trends in the cause of the fire, they can be quickly addressed in the community with a

public education blitz. Currently, in Plympton-Wyoming, fire cause determination is limited or is not documented for future reference.

The FPO will also assist in fire scene investigation after the District Fire Chiefs have performed the initial investigation and have determined it meets the criteria for a formal investigation. The FPPEO should also be involved in planning future development in the Town for plan examination and site plan approvals related to the fire department issues. This will ensure all fire department-related concerns will be addressed for all future developments.

**18.Recommendation: A proactive public education program and inspection schedules are recommended to be established.**

**19.Recommendation: The Fire Chief or Deputy Fire Chief (Prevention) be certified in fire cause determination, and the District Fire Chiefs be trained to investigate the initial fire scene.**

**20.Recommendation: A procedure is put in place and ensure that all structure fire causes are determined.**

Every community in the province of Ontario is undergoing the development of new subdivisions. The new construction is guided by the Ontario Building Code (OBC) to make them safer for the occupants. However, the new lightweight construction becomes a hazard to firefighting operations during a fire. Along with the new lightweight construction, the spatial separation between units and the builder's desire to maximize the size of the new building by creating bigger, higher units is also a concern for firefighters and fire ground tactics. The new construction and the associated materials used are valuable information for firefighters.

O/Reg. 217 applies to *buildings constructed* using lightweight pre-engineered floor or roof systems containing light elements such as wood I-joists, cold-formed steel joists, wood truss assemblies with metal or wood plates and metal web wood joists, or lightweight floor or roof systems containing solid sawn lumber joist less than 38 mm by 235 mm, other than a *house*, and for which a permit under section 8 of the Act is issued after July 1, 2022.

**21.Recommendation: The Chief Building Official provide the following information to the Chief of the fire department in respect to the buildings described above, the dates the permits are issued, the address of the building, and a description of the floor or roof system.**

## **Training**

Firefighter safety is paramount in everything from the emergency scene to training evolutions. Plympton-Wyoming's Council-approved level of service outlined in E&R By-Law 12 of 2017 has an extensive list of services provided to the community. Training is critical to maintaining this level of service and for firefighter safety. It is vital that continuous training and certification is maintained and, where necessary, expanded. With the new requirement for all firefighters to be certified to an N.F.P.A. standard for every discipline they are engaged in, the training requirements for fire departments will take on an extensive amount of work and programming to ensure that firefighters are certified in the competency to achieve and or maintain the level of service set out by Council.

**22. Recommendation: The Fire Chief reviews the Fire Department training plan and establishes a plan to ensure the department meets the intent of O/Reg. 343/22 Firefighter Certification for the levels of service as set out by Council.**

Through interviews with officers and firefighters, along with the survey results sent out to all volunteers, Plympton-Wyoming firefighters believe they meet the community's current needs. However, there is a belief the training program requires an overhaul as it has not changed over the past number of years. The current training is focused on the recruits and does not address the needs of the more senior firefighters. In addition, there is a concern that the training is too much of a lecture style and does not permit hands-on training for all participants.

**23. Recommendation: The Fire Chief reviews the annual training plan to include training for senior firefighters and provides a balance of lecture style with hands-on training for all firefighters.**

The Plympton-Wyoming volunteers are comprised of some staff working in the Petrochemical industry, and their shift work can prevent them from regularly attending training nights. There is a provision that if one misses their training at their station, they can attend the other station's training night to catch up. However, in discussion with the firefighters, this rarely occurs as there continues to be a reluctance to travel to the other station for make-up training. A concerning issue for some volunteer firefighters and the Town of Plympton-Wyoming is for those staff who have not been to a training night due to work schedules for an extended period. This becomes an issue of competency and liabilities where a volunteer firefighter can be absent from training for more than one year and still respond to emergency calls. The Occupational Health and Safety Act Section 25, (2) (a) requires the employer to "provide information, instruction and supervision to a worker to protect the health and safety of the worker."<sup>4</sup> An alternate

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<sup>4</sup>Ontario Occupational Health and Safety Act and Regulations

training schedule to accommodate staff who fall into this situation needs to be addressed and, where possible, establish time during the day or on weekends to allow the firefighters to catch up on the missed training sessions. Plympton-Wyoming fire has an attendance guideline (O.G.# 415) which outlines the acceptable participation and attendance levels to be able to stay as an active volunteer.

**24.Recommendation: The Fire Chief enforce O.G.# 415 in the interim and establish a predetermined catch-up training program to accommodate night shift workers' schedule(s).**

Recruitment and retention are arduous tasks for fire departments that rely solely on volunteers for emergency response. Currently, recruits in Plympton-Wyoming are brought on and have not previously achieved N.F.P.A. firefighter I & II certification; they must wait until a course is offered locally to become trained and qualified to respond and participate at fire calls. While the recruits wait for their formal training program to start, they receive some training in-house by Plympton-Wyoming training officers. This can be in the form of medical response, departmental policies, procedures and guidelines and other disciplines. Their ability to respond and be functional is limited to the type and extent of the training provided at their respective station. Currently, their ability to respond on a fire truck is left to the discretion of the District Fire Chief for each station. This can be a liability to the Town for permitting potentially untrained recruit firefighters to be on the scene of a potentially dynamic and dangerous call which could be subject to serious Ministry of Labour ramifications if anything went wrong. The Town of Plympton-Wyoming needs to establish a recruit training program that details every step of the training for a recruit that would start with teaching them, for example, the Standard Operating Policies Procedures and Guidelines right through to their certification to N.F.P.A. 1001 Firefighter I & II. Along with the extensive training program, a detailed sign-off will permit the recruit firefighter to perform the required evolutions for each of the required signoffs. The program must be established to eliminate individual discretion at the station level to deviate from the plan.

**25.Recommendation: Plympton-Wyoming fire establishes a recruit training program that meets N.F.P.A. 1001 (FF I & II) that details their limited emergency response abilities/capabilities as the recruit works through the program.**

Firefighting is inherently dangerous in suppressing the fire during an interior attack. An actual fire is becoming a low occurrence type call but remains one of the highest risks a firefighter can face. With this type of low occurrence /high-risk event, live fire training is essential for fire departments to perform at least once annually. This training permits the department to review departmental procedures, individual skills/competencies and crew performance in a live scenario that cannot be replaced by simulated training. It also provides each firefighter the experience they may not get if it is not offered.

**26.Recommendation: All firefighters shall participate in live-fire scenarios at least annually.**

The country and world are progressively pushing for a switch to electric vehicles as an alternative to the historic carbon-based fueled vehicles; as people switch to electric vehicles and become more prevalent in our communities, the associated hazard of working around them on an emergency scene increases, whether an MVC or car fire. The health and safety of firefighters is at the forefront of every department. To alleviate the safety issues around electric vehicles, firefighters must become aware of the inherent dangers of dealing with them.

**27.Recommendation: Plympton-Wyoming Fire trains all firefighters on the dangers associated with working with electric vehicles at emergency scenes.**

The provincial highway 402 transects the Town of Plympton-Wyoming and is one of the busiest routes for commercial truck traffic entering and leaving Canada for the USA. With the volume of traffic come motor vehicle collisions (MVCs) which can involve a heavy commercial vehicle or multiple commercial vehicles. The Plympton-Wyoming fire department does respond to MVCs and carries vehicle extrication equipment; however, responding to MVCs involving large commercial vehicles is challenging and frequently requires techniques and equipment beyond the scope of Plympton-Wyoming's current training and equipment. Training on Heavy Vehicle Rescue is necessary, as well as any related equipment required above and beyond Plympton-Wyoming's current extraction cache if Plympton-Wyoming continues to provide MVC extrication on highway 402.

**28.Recommendation: Plympton-Wyoming Fire is trained in N.F.P.A. 1006, Heavy Vehicle Extrication techniques and acquire the necessary equipment to perform the extrication and keep firefighters as safe as possible.**

## **Succession Planning**

Officer training is vital to ensure competent and qualified candidates are available for promotional opportunities that become open in the future. Officer training promotes good morale in the ranks as the firefighters and officers see the Town investing in the staff for future promotional opportunities. For succession planning purposes and to increase morale in the ranks, educational training to the senior rank level up to and including the rank of Fire Chief should also be extended to senior Captains and District Fire Chiefs to ensure they have the education and experience to step up and compete for District Fire Chief, Deputy Fire Chief and Fire Chief vacancies in the future. The proactive succession planning by the Town will create a potential candidate pool and foster good morale in the senior ranks knowing there is an opportunity for advancement.



**29. Recommendation: The Town of Plympton-Wyoming make available senior officer training and educational opportunities with a focus on the senior officer positions of Chief, Deputy Chief and District Chief for future succession planning**

**Suppression**

Travel time is an essential component of an effective emergency response and a prime consideration in determining an effective "Level of Service" for the community. Travel time can vary significantly in a community based on geographic makeup. Urban areas usually have a four to six-minute travel time, whereas rural areas can have up to seven to twelve minutes. A detailed travel time analysis and response area study were also undertaken as part of this FMP. A significant factor in emergency response and travel times is the location of the fire station.

The Plympton-Wyoming fire department has two fire halls, each located in the communities of Wyoming and Camlachie. The emergency response coverage is primarily served by Plympton-Wyoming fire stations and supported by the neighbouring community of Lambton Shores through an automatic aid agreement.

The following maps show the county fire dispatch areas, emergency responses over the past five years, travel times for the existing stations and a potential new station site. The southerly travel times have been reduced due to overlap with the Petrolia Fire Department area.

## Automatic Aid Agreement

Closest and municipally responsible  
departments BOTH go  
(check CAD for municipally  
responsible department)

### IMPORTANT MAP NOTES:

Green Numbers refers to the Number's on the  
St. Clair Parkway & Lakeshore Road ONLY

LAMBTON COUNTY - RURAL ADDRESS #

EVEN # - NORTH & EAST SIDE

ODD # - SOUTH & WEST SIDE

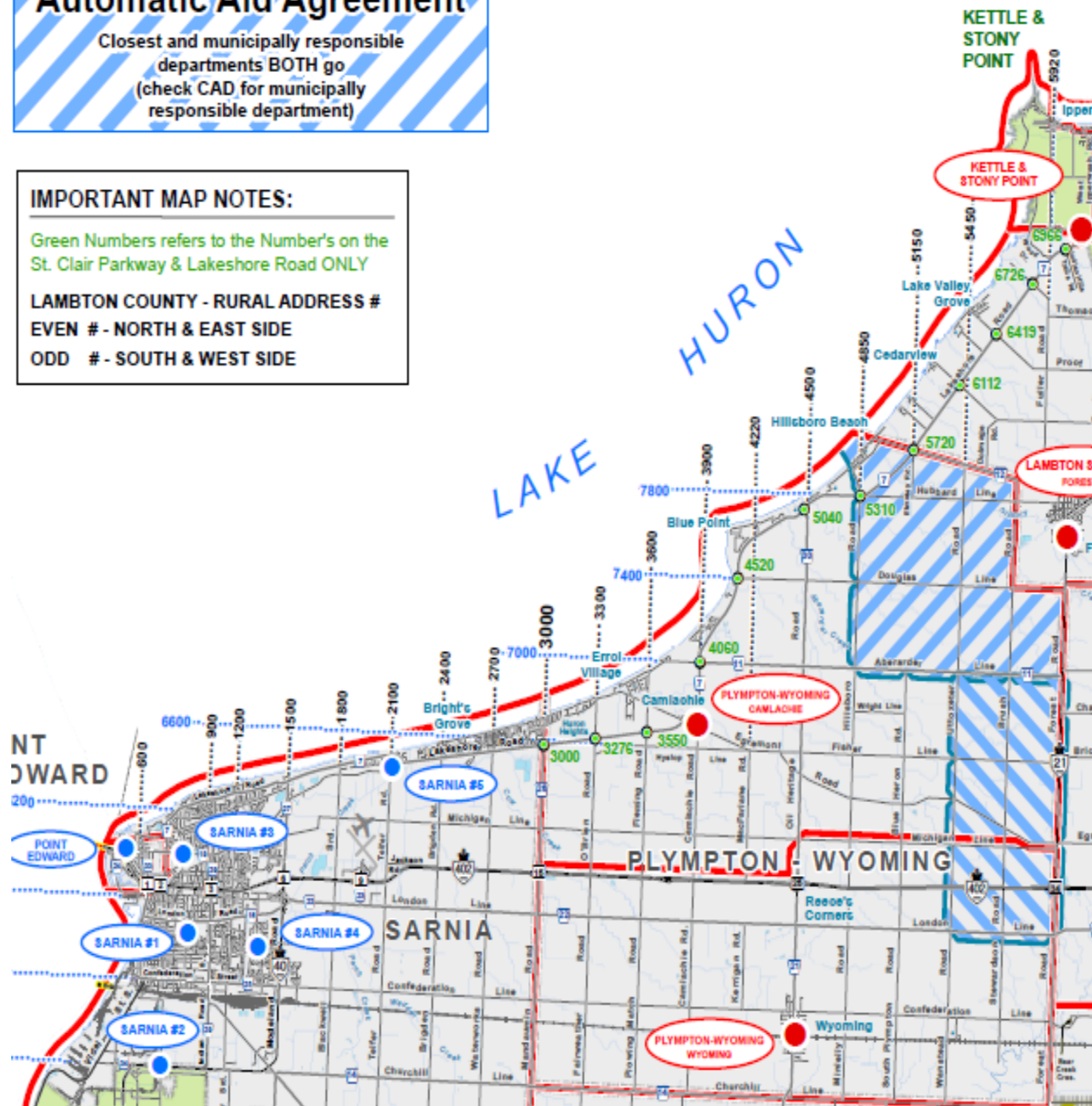


Figure 1: Plympton-Wyoming Existing Response Area with Automatic Aid from Lambton Shores and Warwick Twp.

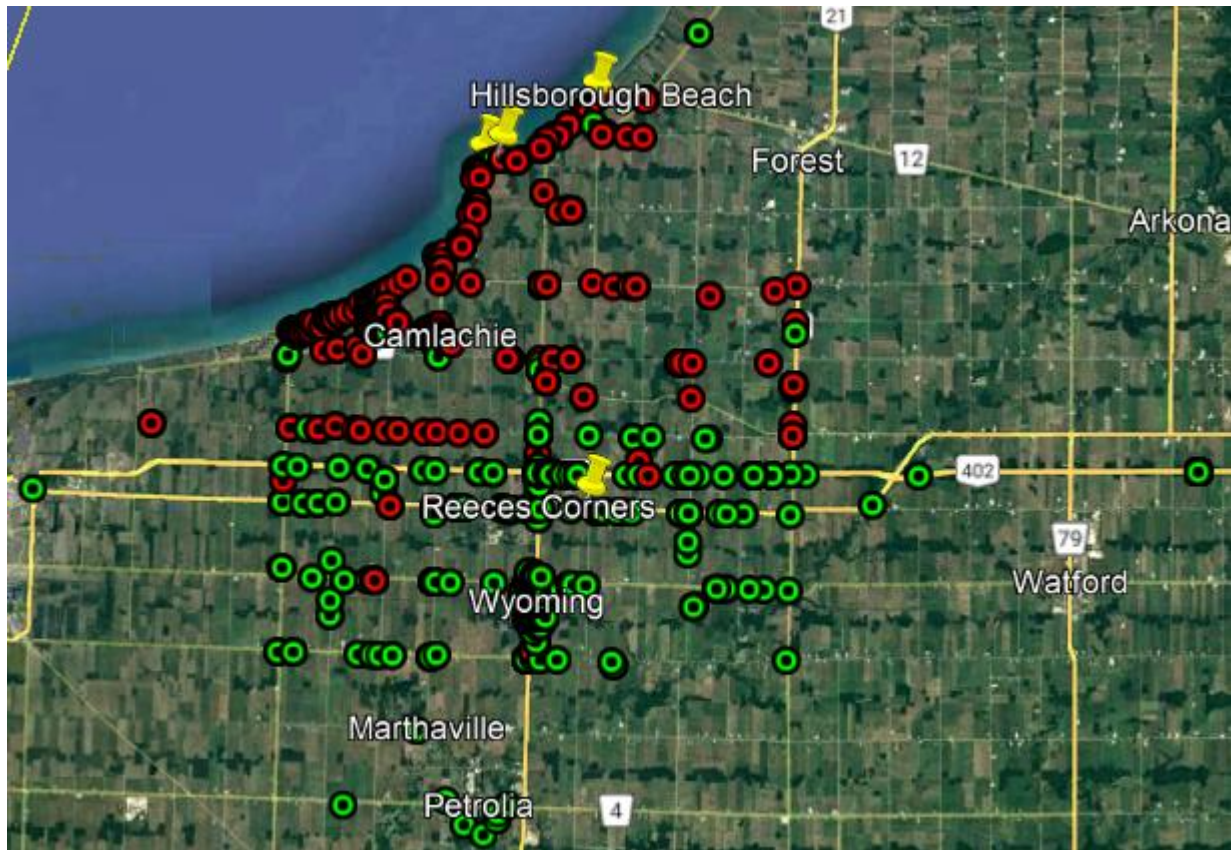


Figure 2: All emergency calls locations for Plympton-Wyoming - 2017 2021  
Wyoming is green dots, Camlachie is red dots



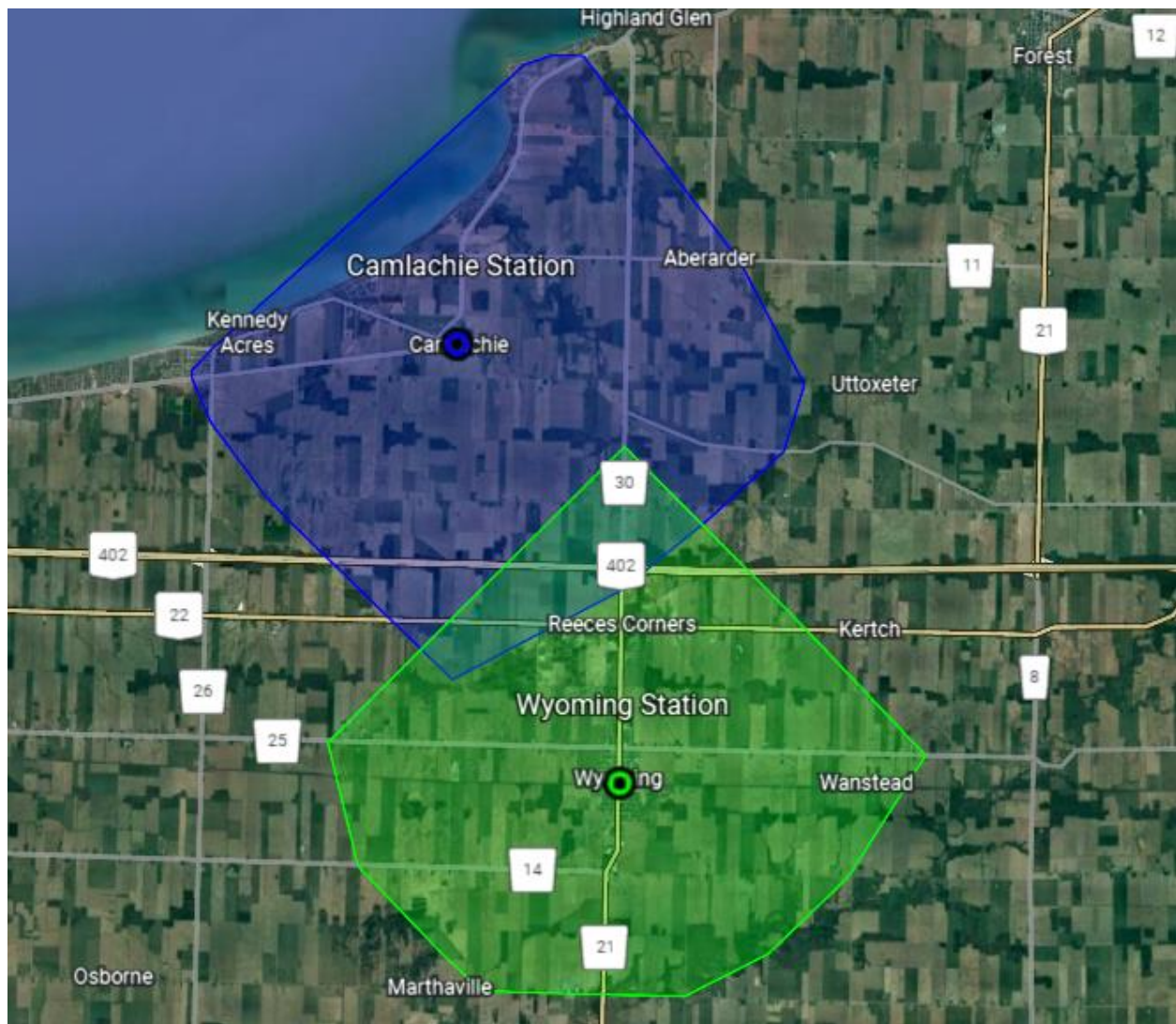


Figure 3: Response coverage - 6-minute travel time

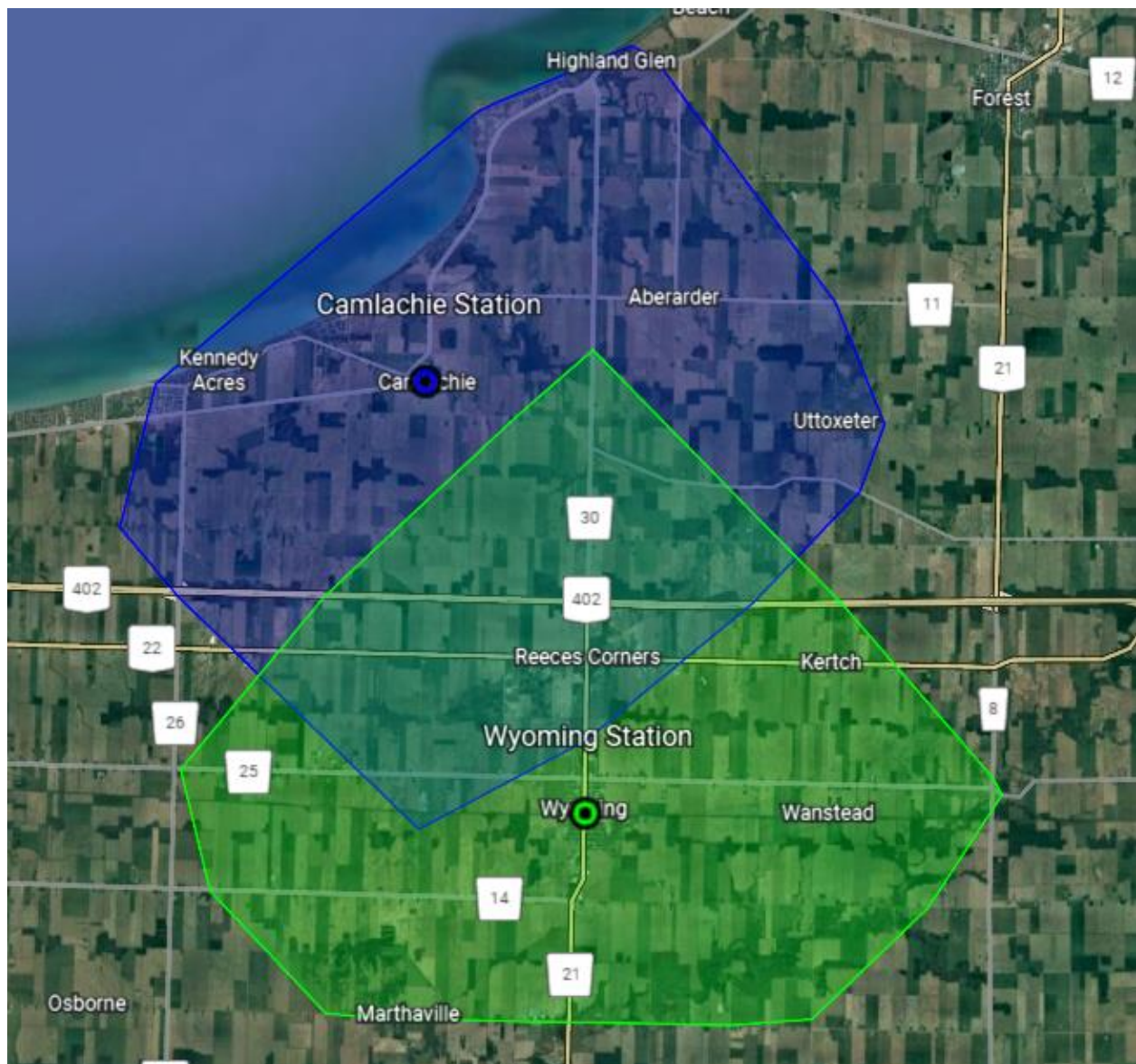


Figure 4: Response coverage - 8-minute travel time



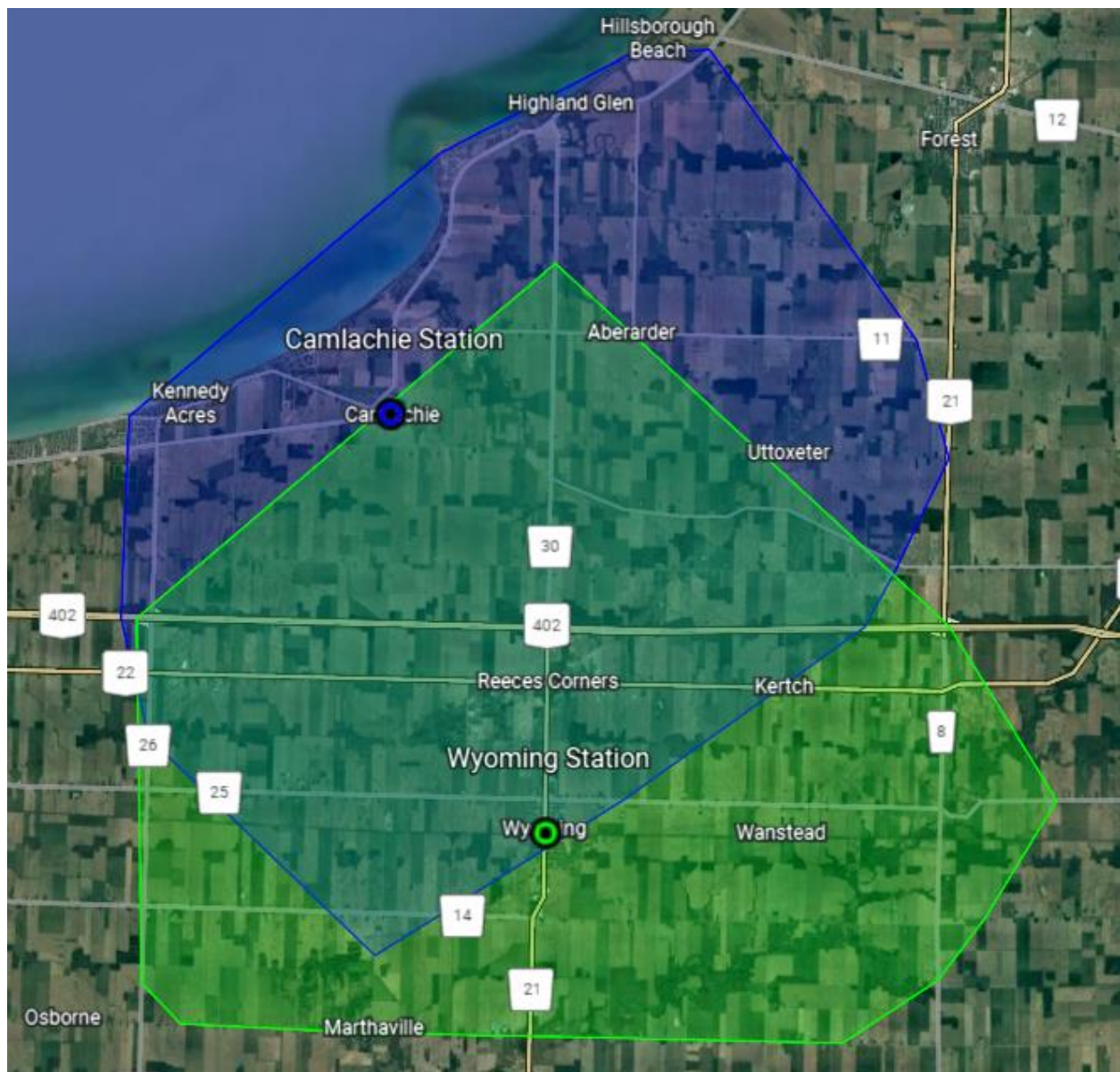


Figure 5: Response coverage -10-minute travel time



Figure 6: Response Coverage - 6-minute travel time with a 10-minute Forest travel time



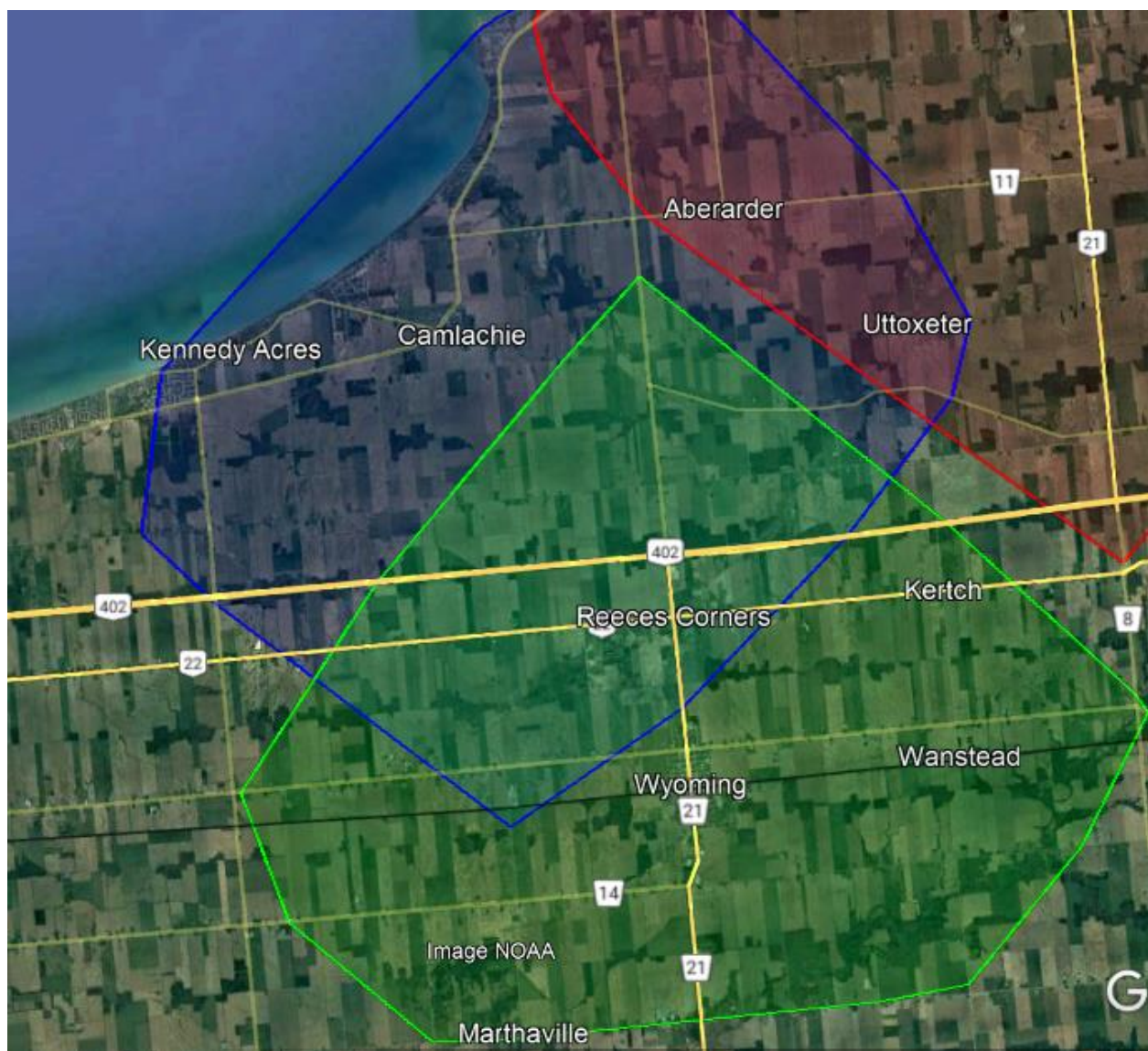


Figure 7: Response Coverage - 8-minute travel time with a Forest 10-minute travel time

ESSSi performed a mapping exercise which looked at a response using a 10-minute travel time in the Town of Plympton-Wyoming. Figure 9 shows a travel time of 10 minutes supported by the current automatic aid from Lambton Shores' Forest station with a 10-minute travel time. A single fire hall located at Reece's corners achieves 10-minute travel time coverage for the Town of Plympton-Wyoming with the need for minor auto aid coverage. Consideration for this future state single fire hall would require analyzing the ability for volunteers to make a timely response to the proposed fire station for initial response and depth of coverage for the assembly of a fire attack team.

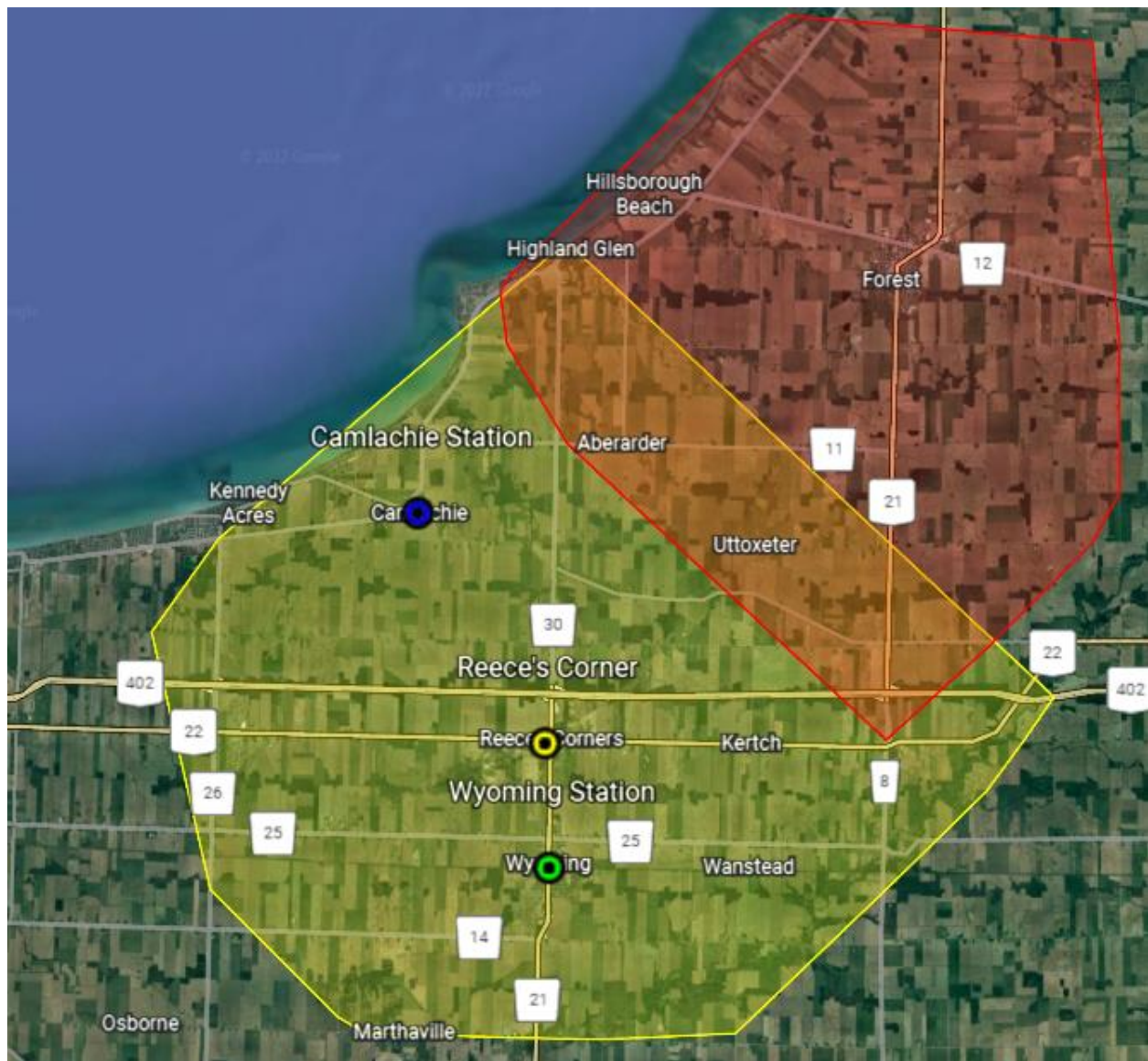


Figure 9: Future State – Reece's Corners Fire Station Location 10 Minute response Coverage with Forest FD support.

Good practice in today's fire service is to have Council-approved Key Performance Indicators (KPIs) which measure how you are performing. N.F.P.A. 1720 is the currently widely recognized standard to specify the minimum criteria addressing the effectiveness



and efficiency of a volunteer fire department in the delivery of the approved level of service to their community. Currently, Plympton-Wyoming fire does not have any KPIs to measure its effectiveness or efficiency to ensure that Council clearly understands the level of service being delivered in the community and to give the fire department a benchmark to strive for improvement.

**30. Recommendation: The Town of Plympton-Wyoming establishes KPIs for emergency response travel time based on N.F.P.A. 1720 for the Council's consideration for approval, and the performance is monitored annually to determine if a potential relocation of a fire hall is to be required in the future to continue to achieve Council's established KPIs.**

Plympton-Wyoming participates in the Lambton County Mutual Aid agreement, where when required, Plympton-Wyoming Fire can call for help from a neighbouring community when their resources have been exhausted, and they continue to need additional apparatus and personnel. Through discussions with staff, it was identified that the call for Mutual Aid was delayed on many occasions due to the Incident Commander on the scene not making a timely decision.

**31. Recommendation: The Fire Chief amends O.G. #3010 to reflect a criterion to direct the Incident Commander in a decision-making process to utilize Mutual Aid when the emergency may become beyond the capabilities of the Plympton-Wyoming fire services.**

## **Fire Ground Effectiveness**

The Office of the Fire Marshal developed the Comprehensive Fire Safety Effectiveness Model to address fire protection services in a community. The model comprises seven sub-models that address how the optimum level of fire protection can be delivered in a community. Each sub-model examines certain factors of fire safety in the community. When all factors are combined, a municipality will have a framework for providing fire protection services and supplying adequate health and safety for the firefighters. Fire Ground Effectiveness is a sub-model that guides the provision of structural firefighting activities.

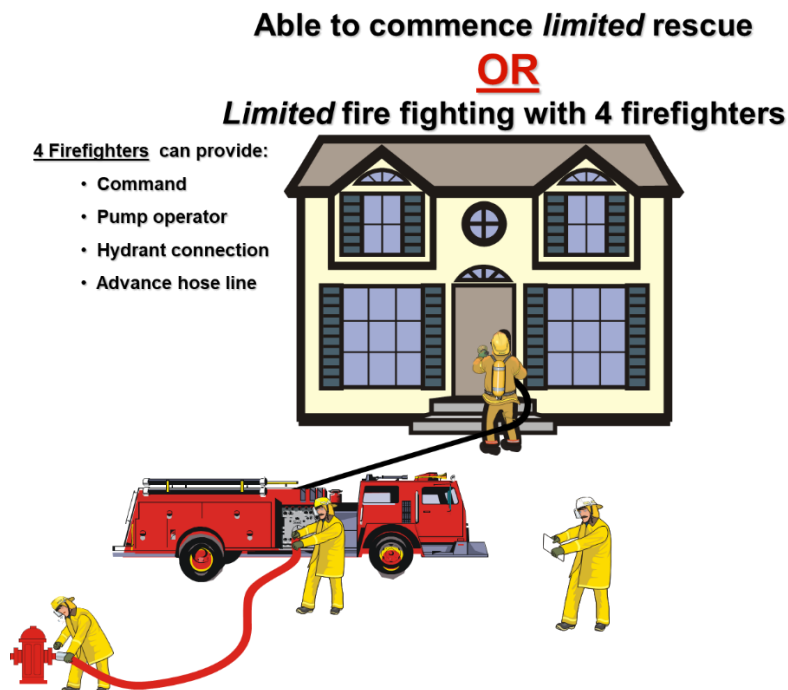
The National Fire Protection Association (N.F.P.A.) has developed fire-ground staffing standards. N.F.P.A. 1720, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to The Public by Volunteer Fire Departments. The 2020 Edition is a standard that addresses response times and apparatus staffing for volunteer fire departments. In Ontario, this is not a mandatory standard but is a practice that some fire departments strive to follow. Very few fire departments can achieve the number of firefighters on the scene, or the response times suggested in the standard.

These organizations provide guidelines for a fire department to consider when it provides interior structural firefighting and rescue operations.

The Province of Ontario does not mandate a municipality to provide structural firefighting operations and rescue services. It is left to the municipality to decide its own "Level of Service" based on its "Needs and Circumstances (Section 2, (1) (b) F.P.P.A.). The O.F.M. has supplied Public Fire Safety Guidelines for municipalities to consider when a Level of Service decision is to be made. Most communities have conducted risk assessments and based their fire protection services on mitigating the risk. The municipal Council sets the "Level of Service." It is identified in the approved Establishing and Regulating By-law and defines a fire department's services.

The Fire Ground Effectiveness Sub-Model addresses fire attack teams and the functions performed on the fire ground.

The Sub-Model provided examples of the duties of three, four, and five-person crews to perform as a first response crew to a structure fire. It is essential to understand that a water supply must be established before any interior firefighting or rescue can be initiated. The Sub-Model states that two firefighters entering a building can only perform limited rescue OR limited firefighting. Limited is commonly defined as firefighters being just inside a doorway or a window. Aggressive interior rescue **OR** interior firefighting cannot be conducted with only four firefighters at the emergency. The activities of four firefighters are shown below. The time gap between crews' arrival is called "Alone Time." The longer the "Alone Time," there is a greater risk to public safety and the destruction of property due to a lack of resources.



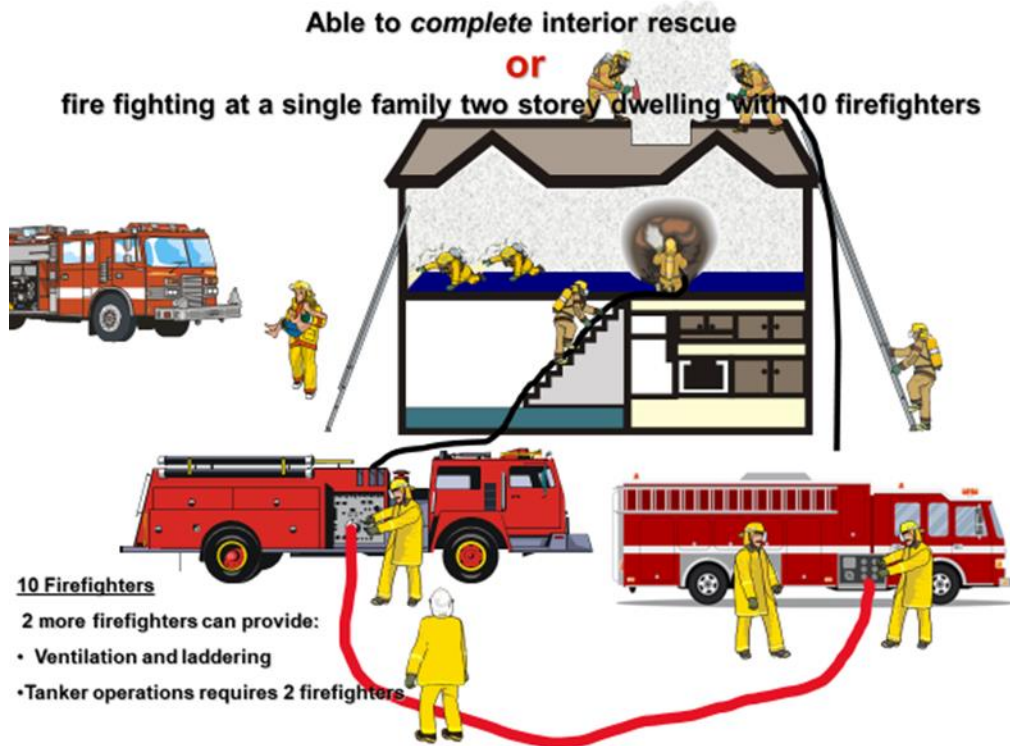


Rural operations require the deployment of tankers to provide an adequate water supply. A tanker shuttle must be initiated to maintain an adequate water supply. Department resources and automatic aid can be used to supply water to the fire scene.

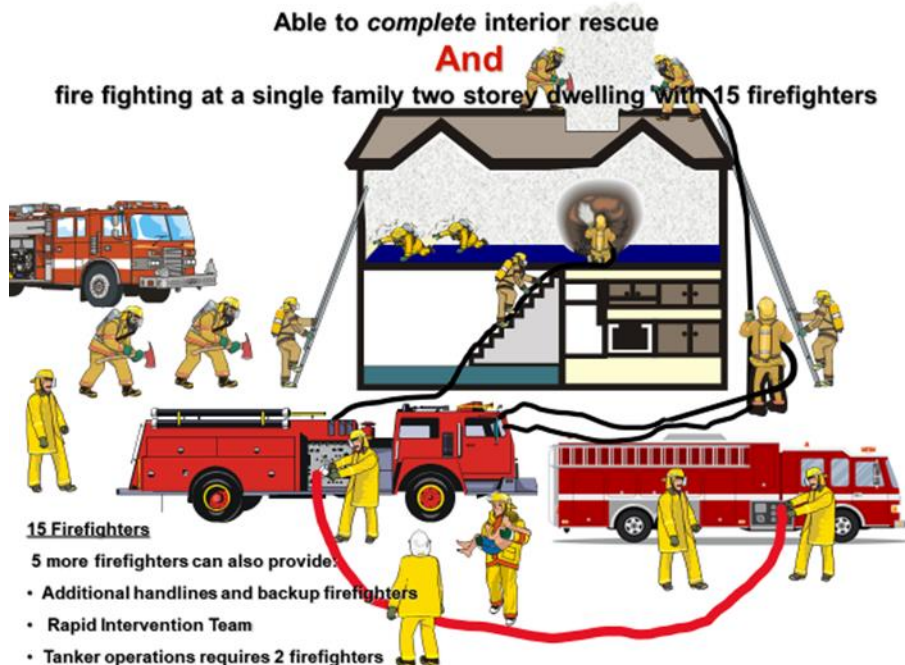
As resources arrive and eight firefighters are on-scene, interior rescue OR firefighting operations can begin. It is essential to understand that only one of the two operations that eight firefighters can perform. The activities of eight firefighters are shown below.



The O.F.M. has stated that a minimum of ten firefighters should be assembled at the fire scene to complete interior rescue or interior firefighting. The assembly of ten firefighters on-scene does not provide enough resources to complete both activities.



The illustration below is N.F.P.A.'s recommended staffing numbers for a single-family dwelling fire. The activities below require at least fourteen to fifteen firefighters to be on-scene to simultaneously complete rescue and firefighting activities.



Most fire departments in Ontario operations are based on a quick assembly of a fire attack team of fourteen or fifteen firefighters at a structure fire to mitigate the emergency effectively and safely. As the number of on-scene personnel increases, more fire ground activities can be undertaken simultaneously. Time is of the essence at all structure fires. The first crew of four firefighters must be supplemented with additional staff as quickly as possible, reducing the "Alone Time." Not assembling the proper number of firefighters at a structure fire and reducing the "Alone Time" places the first responding crew in a position of trying to perform firefighting or rescue operations without the proper resources to back them up.

Plympton-Wyoming fire has an operational guideline to address Fire Fighting Operations (O.G. #3013), and the Incident Commander determines the strategy to perform a potential rescue or attack the fire.

Through a review of the O.G., based on interviews and survey results, it is clear the Plympton-Wyoming Fire has left the decision-making process up to the discretion of the Incident Commander when to make entry into a structure on fire for rescue and or interior attack. The O.G. currently utilizes an old saying:

"We will risk a lot, in a calculated manner, to save a savable life,  
We will risk our lives a little in a calculated manner to save savable property,  
And we will not risk our lives at all for lives or property that are already lost."

This strategy and the stated 2 in 2 out rule in the O.G. for making an entry in today's fire environment is outdated. Today's fires burn hotter and faster than they did 15-20 years ago. The time from ignition to flash over has been dramatically shortened and presents an untenable environment for victims and firefighters if caught inside the building.

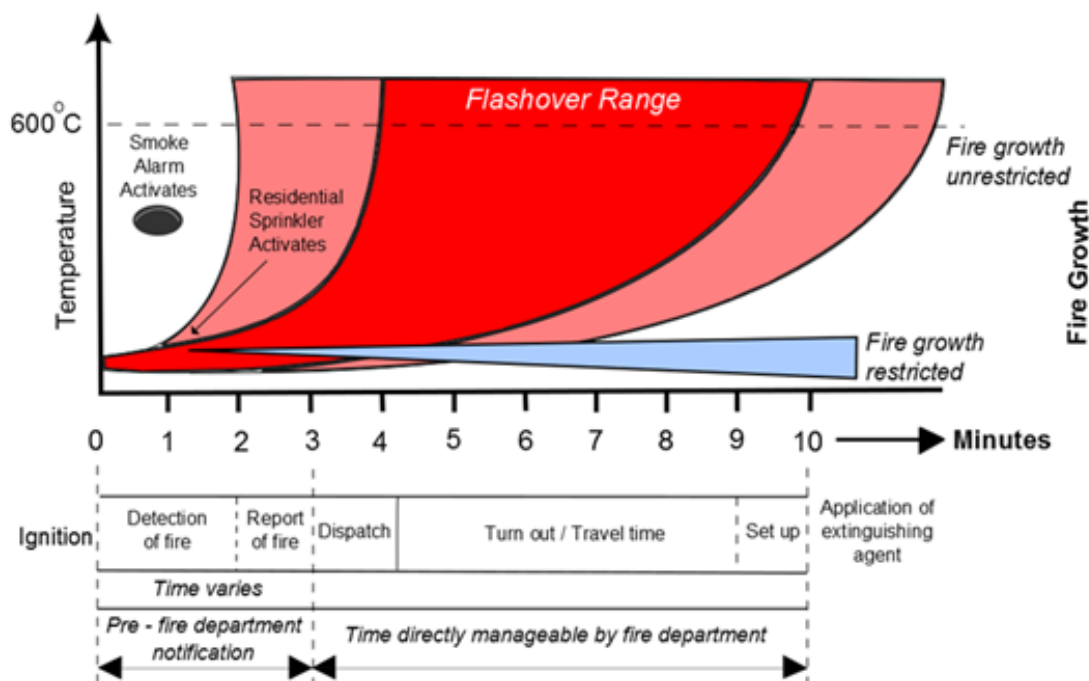


Chart 1: Source- Fire Underwriters Survey "Alternative Water Supplies for Public Fire Protection: An Informative Reference Guide for Use in Fire Insurance Grading" (May 2009) and N.F.P.A. "Fire Protection Handbook" (2001)

From the data we were able to receive on response times, ESSSi could not accurately determine reliable times for the first arriving apparatus to be on scene or the arrival of the second or additional apparatus supplying the balance of the fire attack team. Couple the lack of reliable data on additional arriving firefighters with the fire progression time frame in chart (1), it is critical that Plympton-Wyoming fire establish a written procedure that states the appropriate number of firefighters to be on scene and set up before making any entry as set out in The Fire Ground Effectiveness Sub-Model.

**32.Recommendation: The Fire Chief establishes a Standard Operating Procedure that indicates the tasks that can be performed at the scene of a structure fire, based on the O.F.M.'s Fire Ground Effectiveness Model.**

**33.Recommendation: The Fire Chief establishes key performance benchmarks to strive to achieve for emergency response times, including Initial response and depth of coverage.**

The suppression division for Plympton-Wyoming has two stations with an officially approved complement of thirty volunteers per station. Currently, Wyoming is at full strength, and the Camlachie station operates with twenty-three volunteers responding to

all emergency responses for the Town. When a response to a fire or significant emergency is required, the protocol set up by the Chief is to page out both stations, and the neighbouring automatic aid station (when appropriate) is notified to respond. This provides coverage of the Town in an emergency. Traditionally the volunteer's response during the day can be challenging due to the full-time work commitments; however, an evening and overnight call pose little problem for an adequate volunteer firefighter response. Based on our review of the documents and data received, Plympton-Wyoming does struggle at times with the daytime response of volunteer firefighters.

The process for volunteers to respond to an emergency call is to be paged out and respond to the emergency. Plympton-Wyoming utilizes the Who's Responding Now APP (APP), which provides digital and radio updates on the call while they are on route to the fire station in their personal vehicles. The APP can indicate to the Incident Command who and how many firefighters are responding to the emergency call. This is a valuable tool for the I.C. as it can assist in formulating emergency scene strategy based on the number of firefighters on route. Plympton-Wyoming's O.G. # 921 does suggest that the firefighters use the APP to indicate when they are responding; however, it has been noted in discussions with staff that most firefighters do not utilize the APP to show they are responding to the call. This leaves the I.C. in the dark as to how many firefighters they can expect to arrive, thus making their strategy decisions more difficult.

**34.Recommendation: The Fire Chief should transform the O.G. into a Procedure and have staff utilize the APP to indicate their response to the emergency call before commencing their response in their personal vehicle.**

The Town of Plympton-Wyoming is primarily a rural municipality where many addresses are outside the hydrant-protected areas. Fires outside the hydrant protected areas require the fire department to shuttle water from the nearest water source, a hydrant, a local pond, or a creek. The practice of shuttling water from the closest water source is standard practice, and fire departments can achieve accreditation in Superior Tanker Shuttle Service through the Fire Underwriters Survey (F.U.S.). This accreditation recognizes the fire department can achieve an equivalency to hydrant protection for the community through their water shuttling and can lead to a reduction in insurance premiums for the residents of the community that reside in an accredited area.

**35.Recommendation: The Plympton-Wyoming Fire Department seeks to achieve the Superior Tanker Shuttle Service Accreditation through the FUS.**

The Town, through controlled growth, has been able to restrict the height of the buildings to three stories. This has permitted the fire department to operate without using or owning an aerial apparatus over the years. Currently, if Plympton-Wyoming requires the use of an aerial device, they will need to initiate a mutual aid request from



the Town of Petrolia. As the Town's growth occurs over the next ten years, the pressure from builders will continue to seek to build larger and higher buildings. Using ground ladders will become a less effective and potentially unsafe practice to provide alternate methods of egress from top floors or roof locations of three-storey or higher buildings and larger buildings. Aerial ladders have also become an effective tool for residential fires due to the lightweight construction of a new building. The Town should seek out a fire service agreement with neighbouring fire departments to use an aerial device or investigate purchasing one for their own use.

**36. Recommendation: A fire service agreement for the use of an aerial device if required by Plympton-Wyoming be negotiated with a neighbouring municipality or add an aerial apparatus to the fire department's fleet.**

### **Recruitment and Retention**

Plympton-Wyoming is like most rural communities in Ontario, where they rely on volunteers to staff the fire trucks. This has been an effective way to operate over the years as the citizens were very community oriented. Today, this is proving more problematic across the province as employers are less inclined to permit their employees to leave work to respond to emergency calls. The pressures of supporting and raising a family have put additional pressure on the volunteer system.

Plympton-Wyoming is experiencing a turnover rate of volunteers every year of less than one percent. The ongoing annual recruitment process in Plympton-Wyoming to fill the vacancies has been successful over the years in maintaining a manageable complement of volunteers. The needs of the modern volunteer must be addressed if, in the future, the emergency response is to continue to be based on a volunteer system. To address the needs of today's younger generation, who are primarily new to volunteering, conversations should be held with them about what is important to them and what it would take to attract and keep them would be beneficial. However, if continued efforts to recruit volunteers in the future are not successful, other methods of daytime staffing must be considered.

**37. Recommendation: To maintain an annual recruitment process of volunteer firefighters to ensure the department addresses the vacancies created by firefighters leaving the fire department.**

**38. Recommendation: Plympton-Wyoming meets with the current volunteers on an annual basis to discuss or get feedback on current issues and find solutions to attract and retain volunteers.**

## **Emergency Management**

The last two years of the municipality's response to the pandemic has put an additional burden on the Community Emergency Management Coordinator (C.E.M.C.) which has highlighted in every community the need for depth of staff when involved in a declared emergency. The Fire Chief is the current C.E.M.C., with the alternate being the C.A.O. Operating in a declared emergency can be stressful. The need for familiarity with the Emergency Plan and the annual compliance process is an asset when the emergency is declared, and the Emergency Operation Center is activated. Sharing the C.E.M.C.'s responsibility and annual process of compliance and training works well to ensure the alternates are familiar and comfortable with the process required to step in when the Fire Chief is unavailable. Sharing the C.E.M.C.'s work and responsibilities would also help lighten a small portion of the Fire Chief's workload.

The C.A.O. being the alternate C.E.M.C. being does not lend itself to the ability to share the workload as the C.A.O. and the Fire Chief's workload are already heavy, and in certain declared emergencies, both the C.A.O. and Fire Chief will be preoccupied and unable to fulfill the role of the C.E.M.C. Consideration should be given to ensure both the C.A.O. and the Fire Chief have designated alternates within the corporation that will not be consumed by the primary E.O.C. duties.

**39.Recommendation: Plympton-Wyoming establishes designated alternates for senior staff and an alternate C.E.M.C.**

**40.Recommendation: Sharing the workload of C.E.M.C. with the new alternate(s) to ensure depth of knowledge and continuity of business.**

The past two years have proven the need for alternate work arrangements and technical requirements to make alternative and remote work a smooth process. Documenting, practicing, and annually reviewing the process and required technology to ensure the successful transition will provide smoother operations when needed.

**41.Recommendation: Annual updating of policies and processes to ensure continuity of municipal operations if staff cannot work from their primary or alternate locations.**

Every Municipality in Ontario must have an approved Emergency Plan as per The Emergency Management and Civil Protection Act and provide training on the plan annually to ensure everyone is aware of their roles and responsibilities. Staff should be aware of their roles and responsibilities in a municipal or county activation involving the fire department. Concerns were raised regarding the roles and responsibilities of who is responsible for what and who would be in charge of a potential joint operating scene. The Plympton-Wyoming staff are uncomfortable with the radio procedures and the communication plan if an event occurs. In a county activation involving front-line

firefighters and officers, it is always best to know the people you would be liaising with from the other emergency groups, such as Police and E.M.S. and county staff. A good practice is to exercise the plan on a smaller scale with representatives from the other groups in the municipal and county plan at an operations level. This facilitates initial introductions, roles, and responsibilities in a non-emergency situation where participants can feel comfortable learning in a non-emergency situation.

**42. Recommendation: The Town of Plympton-Wyoming plans an exercise with their county partners at the operations level to facilitate exercising front-line staff of their roles and responsibilities within the Lambton County Emergency Plan.**

## **Fleet and Facilities**

Plympton-Wyoming operates a modern fleet and inventory of equipment in each fire station. The Town Council should be commended for this achievement and for setting up a fleet rationalization schedule where the life span of each unit is tracked and replaced over a twenty-year period. As a result, the fleet and equipment in Plympton-Wyoming are modern and in excellent shape. In discussion with staff, nothing but good comments were heard regarding the state of the fleet and equipment.

**43. Recommendation: The Town of Plympton-Wyoming reviews the fleet rationalization schedule on an annual basis to ensure that fleet replacement costs are updated to reflect the actual cost of the replacement vehicle and equipment.**

The Plympton-Wyoming fire department operates out of two fire stations in the Town. The Wyoming station is a relatively new and modern facility; however, it lacks internet capabilities, hindering the Wyoming District Chief's ability to work online with its records management program. The Camlachie station is dated, has received numerous renovations over the years, and is at its capacity. In discussion with staff, the station still lacks storage areas for equipment, work benches, adequate washrooms, and the space for staff to place personal items while at the station.

In today's work environment, it is essential to provide a facility conducive to the work being performed while meeting the needs of its employees. The workforce today comprises all walks of life, and it is the employer's responsibility to ensure the place of work is appropriate for the employee to feel safe and respected.

**44. Recommendation: The Town of Plympton-Wyoming looks at immediate and long-term solution options for acquiring an internet connection for the Wyoming fire station.**



**45.Recommendation: The Town of Plympton-Wyoming undertakes a detailed facility audit of the Camlachie station to identify the work areas required by the firefighters to perform their station duties, including the design of accessible washrooms and gender-specific or gender-neutral washrooms, shower facilities and change areas.**

The health and safety of firefighters' working environment should be at the forefront of all employers. Fire stations are no exception, whether the building is relatively new or an aging station. The International Agency for Research on Cancer "has classified diesel engine exhaust as carcinogenic to humans. It found that diesel exhaust is a cause of lung cancer and noted a positive association with an increased risk of bladder cancer."<sup>5</sup>. The O.H.&S. Section 21 Firefighter Guidance notes identify employers' actions to manage diesel exhaust emissions. Currently, Plympton-Wyoming has an exhaust extraction system in the Wyoming station, and the Camlachie station has two apparatus which normally operate out of the station and are equipped with a "Ward No Smoke" filter system on each unit. As Plympton-Wyoming plans for future fire stations and or the replacement or renovation of the Camlachie station, consideration for an exhaust extraction system should be given to manage diesel particulate for any apparatus operating out of the station.

**46.Recommendation: Future fire station designs incorporate diesel exhaust extraction systems.**

## **Financial Considerations**

The fire master plan contained herein is a comprehensive document that outlines recommendations for the Plympton-Wyoming Fire and Emergency Services. These recommendations address the municipality's current and projected short and long-term issues.

The Fire Master Plan is a living document that can change year by year to meet the changing needs of a growing community. The Fire Chief is responsible for creating an implementation schedule for the recommendations in this Fire Master Plan and obtaining the Council's approval to implement the recommendations. When required, the fire chief will provide a business case to implement any recommendation requiring Council's approval. The recommendations requiring funding will be presented to Council as part of the yearly budget process.

ESSSi understands the fiscal impact these recommendations will have on the Town, so we have not provided a yearly timeline for implementation. The Council faces many budgetary challenges in providing a wide range of services to the municipality. These

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<sup>5</sup> OH&S Section 21 Guidance Note 3-1

recommendations should be considered within the annual budget setting process based on the Town's needs and circumstances and in conjunction with the Council's budget setting priorities.

## **Conclusion**

The goal of this Fire Master Plan is to enhance education, prevention, and emergency response capabilities with an ultimate objective to improve the overall safety of those that live, work, and vacation in Plympton-Wyoming. Coupled with the Community Risk Assessment, the Fire Master Plan is meant to be a living document continuously evolving and improving as new information is gathered and analyzed.

Once Council endorses this plan, an implementation plan is to be developed and executed to ensure all the suggested recommendations are carried out in a timely and cost-effective manner. The Fire Master Plan will ensure that Plympton-Wyoming can provide excellent fire protection services and be ready to address the future growth of the municipality.

Emergency Services Strategy and Solutions Inc. would like to thank C.A.O. Carolyn Tripp, Fire Chief Darryl Thompson and the Officers and Firefighters for their input and cooperation in making this Fire Master Plan a reality.

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8	Recommendation: The Fire Chief should establish Key Performance Indicators for all division's activities for Council's review and approval and regularly report on these KPIs.	11
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10	Recommendation: The Fire Chief investigates further opportunities to use software to automate all divisions.	11
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12	Recommendation: The dispatch agency has communicators with N.F.P.A. 1061 certification.	13
13	Recommendation: The dispatching agency provides statistical reporting at least yearly to reflect their N.F.P.A. 1221 call answer and dispatch percentages per N.F.P.A. 1221.	13

14	<b>Recommendation: A proactive Smoke/CO Alarm program for the Town of Plympton-Wyoming be established.</b>	14
15	<b>Recommendation: Additional Public Educations programs should be implemented to assist in improving fire and life safety in the community.</b>	16
16	<b>Recommendation: The Municipality ensures the Fire Chief or the Deputy Fire Chief Certification to N.F.P.A. 1031 or certified inspection services are contracted to meet the intent of the F.P.P.A. and the E&amp;R By-Law 12 of 2017.</b>	16
17	<b>Recommendation: The Fire Chief recommends to Council an increased level of service to the recommended Fire Inspection frequency as outlined by the O.F.M. (Table 1) immediately upon the Fire Department's certification to N.F.P.A .1031.</b>	17
18	<b>Recommendation: A proactive public education program and inspection schedules are recommended to be established.</b>	18
19	<b>Recommendation: The Fire Chief or Deputy Fire Chief (Prevention) be certified in fire cause determination, and the District Fire Chiefs be trained to investigate the initial fire scene.</b>	18
20	<b>Recommendation: A procedure is put in place and ensure that all structure fire causes are determined.</b>	18
21	<b>Recommendation: The Chief Building Official provide the following information to the chief of the fire department in respect to the buildings described above, the dates the permits are issued, the address of the building, and a description of the floor or roof system.</b>	18
22	<b>Recommendation: The Fire Chief reviews the Fire Department training plan and establishes a plan to ensure the department meets the intent of O/Reg. 343/22 Firefighter Certification for the levels of service as set out by Council.</b>	19
23	<b>Recommendation: The Fire Chief reviews the annual training plan to include training for senior firefighters and provides a balance of lecture style with hands-on training for all firefighters.</b>	19
24	<b>Recommendation: The Fire Chief enforce O.G.# 415 in the interim and establish a predetermined catch-up training program to accommodate night shift workers' schedule(s).</b>	20

25	<b>Recommendation: Plympton-Wyoming fire establishes a recruit training program that meets N.F.P.A. 1001 (FF I &amp; II) that details their limited emergency response abilities/capabilities as the recruit works through the program.</b>	20
26	<b>Recommendation: All firefighters shall participate in live-fire scenarios at least annually.</b>	21
27	<b>Recommendation: Plympton-Wyoming Fire trains all firefighters on the dangers of working with electric vehicles at emergency scenes.</b>	21
28	<b>Recommendation: That Plympton-Wyoming Fire be trained in N.F.P.A. 1006, Heavy Vehicle Extrication techniques and acquire the necessary equipment to perform the extrication and keep firefighters as safe as possible.</b>	21
29	<b>Recommendation: The Town of Plympton-Wyoming make available senior officer training and educational opportunities with a focus on the senior officer positions of Chief, Deputy Chief and District Chief for future succession planning.</b>	22
30	<b>Recommendation: The Town of Plympton-Wyoming establishes KPIs for emergency response travel time based on N.F.P.A .1720 for Council's consideration for approval, and the performance is monitored annually to determine if a potential relocation of a fire hall is to be required in the future to continue to achieve Council's established KPIs.</b>	31
31	<b>Recommendation: The Fire Chief amends O.G. #3010 to reflect a criterion to direct the Incident Commander in a decision-making process to utilize Mutual Aid when the emergency may become beyond the capabilities of the Plympton-Wyoming fire services.</b>	31
32	<b>Recommendation: The Fire Chief establish a Standard Operating Procedure that clearly indicates the tasks that can be performed at the scene of a structure fire, based on the O.F.M.'s Fire Ground Effectiveness Model.</b>	36
33	<b>Recommendation: The Fire Chief establishes key performance benchmarks to strive to achieve for emergency response times, including initial response and depth of coverage.</b>	36
34	<b>Recommendation: The Fire Chief transforms the O.G. into a Procedure and has staff utilize the APP to indicate their response to the emergency call before commencing their response in their personal vehicle.</b>	37

35	<b>Recommendation: The Plympton-Wyoming Fire Department seek to achieve the Superior Tanker Shuttle Service Accreditation through the FUS.</b>	37
36	<b>Recommendation: A fire service agreement for the use of an aerial device if required by Plympton-Wyoming or add an aerial apparatus to the fire department's fleet.</b>	38
37	<b>Recommendation: To maintain an annual recruitment process of volunteer firefighters to ensure the department addresses the vacancies created by firefighters leaving the fire department.</b>	38
38	<b>Recommendation: Plympton-Wyoming meets with the current volunteers on an annual basis to discuss or get feedback on current issues and find solutions to attract and retain volunteers.</b>	38
39	<b>Recommendation: Plympton-Wyoming establishes designated alternates for senior staff and an alternate C.E.M.C.</b>	39
40	<b>Recommendation: Sharing the workload of C.E.M.C. with the new alternate(s) to ensure depth of knowledge and continuity of business.</b>	39
41	<b>Recommendation: Annual updating of policies and processes to ensure continuity of municipal operations if staff cannot work from their primary or alternate locations.</b>	39
42	<b>Recommendation: The Town of Plympton-Wyoming reviews the fleet rationalization schedule on a annual basis to ensure that fleet replacement costs are updated to reflect the actual cost of the replacement vehicle and equipment.</b>	40
43	<b>Recommendation: The Town of Plympton-Wyoming plan an exercise with their county partners at the operations level to facilitate exercising front-line staff on their roles and responsibilities within the Lambton County Emergency Plan.</b>	40
44	<b>Recommendation: That the Town of Plympton-Wyoming looks at immediate and long-term solution options for acquiring an internet connection for the Wyoming fire station.</b>	40



45	<b>Recommendation: The Town of Plympton-Wyoming undertakes a detailed facility audit of the Camlachie station to identify the work areas required by the firefighters to perform their station duties, including the design of accessible washrooms and gender-specific or gender-neutral washrooms, shower facilities and change areas.</b>	41
46	<b>Recommendation: Future fire station designs incorporate diesel exhaust extraction systems.</b>	41