# MRC de Pontiac

## STUDY ON THE FEASIBILITY OF FIRE SAFETY SERVICE INTEGRATION

# 1. Mandate



The production of a report on the feasibility of integration of part or entire MRC municipal fire safety service.

This by done by studying the current situation of the fire safety services (FSS) of the MRC and producing a report on the State of situation, a diagnosis as well as impact scenarios.

# 2. Steps taken



- Meetings with elected officials, director generals and chiefs of municipal fire safety services of the municipalities;
- Meeting with fire safety officials and staff of the MRC;
- Taking into consideration the revised fire safety cover plan of the MRC;
- Taking into consideration the presentation given by Mr. Kevin Kluke, Fire Chief of Campbell's Bay / Bristol and Mr. Lee Laframboise, Fire Chief of Shawville / Clarendon presentation dealing with different orientations proposed for the MRC fire coverage;
- Taking into consideration a study by Mr. Jacques Piché, public and civil safety coordinator at MRC dealing with fire coverage and organization of fire services for 2016-2021;
- Different types of services currently existing in Quebec and current fire service trends;
- Consultation of different documents, both statistical and informational, and regulations prepared by ministries of the Government of Quebec.

# 3 The territory

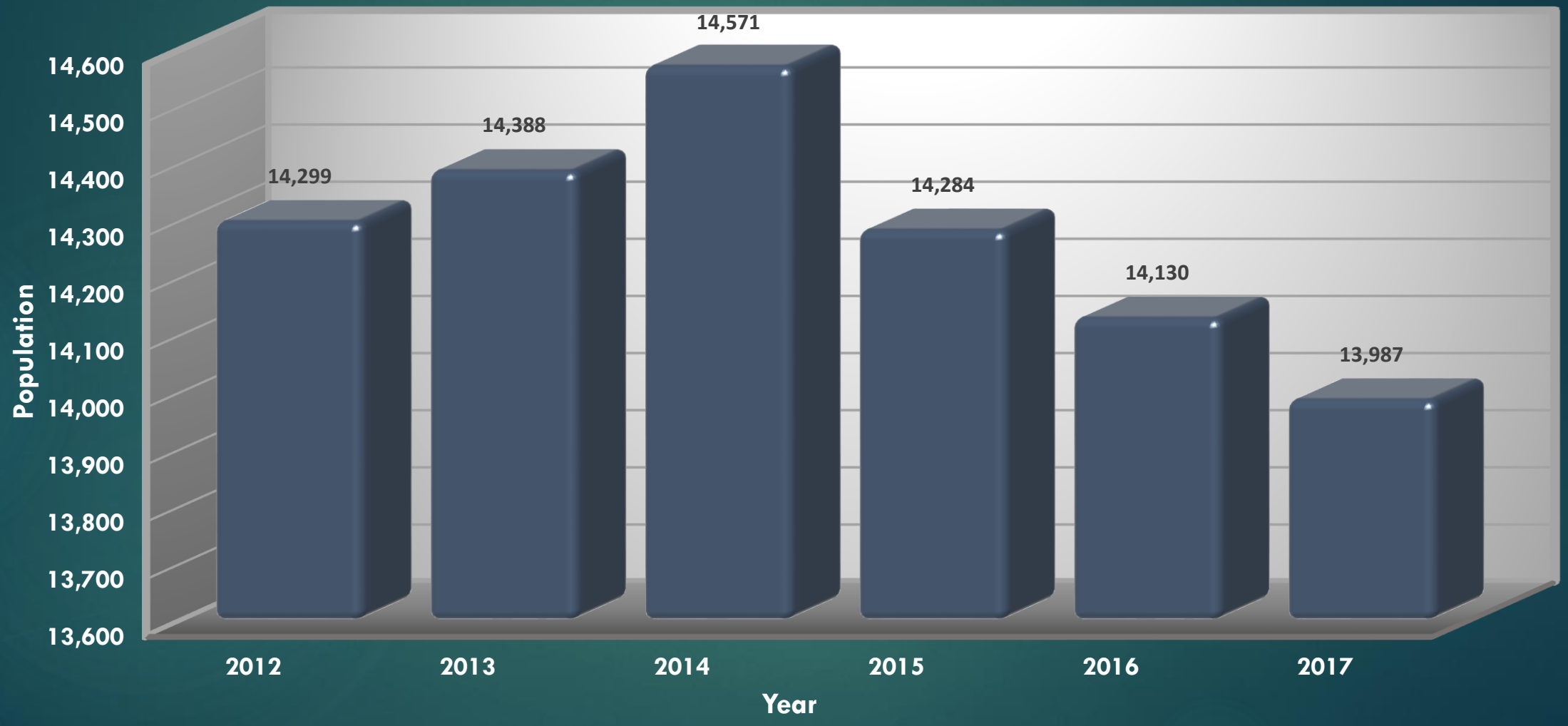
# 3.2.1. Territory



| Municipalities | Population (2017) | Number of urbanization perimeters | Area in km$^2$ |
|---|---|---|---|
| Alleyn-et-Cawood | 202 | 1 | 309.14 |
| Bristol | 1091 | 2 | 206.31 |
| Bryson | 607 | 1 | 3.68 |
| Campbell's Bay | 773 | 1 | 3.30 |
| Litchfield ** | 454 | 2 | 199.28 |
| Chichester | 353 | 2 | 217.81 |
| Clarendon | 1151 | 1 | 330.15 |
| Shawville | 1612 | 1 | 5.38 |
| Fort-Coulonge | 1335 | 1 | 2.96 |
| L'Île-du-Grand-Calumet | 683 | 1 | 130.58 |
| L'Isle-aux-Allumettes | 1286 | 3 | 185.19 |
| Mansfield-et-Pontefract | 2199 | 2 | 466.50 |
| Otter Lake | 1077 | 1 | 452.25 |
| Portage-du-Fort | 245 | 1 | 4.21 |
| Rapides-des-Joachims | 157 | 1 | 236.90 |
| Sheenboro | 114 | 1 | 565.17 |
| Thorne | 286 | 1 | 173.14 |
| TNO Lac Nilgaut | 0 | 0 | 8972.35 |
| Waltham | 362 | 1 | 360.55 |
| MRC total | 13987 | 24 | 12824.85 |

# 3.2.2. Population



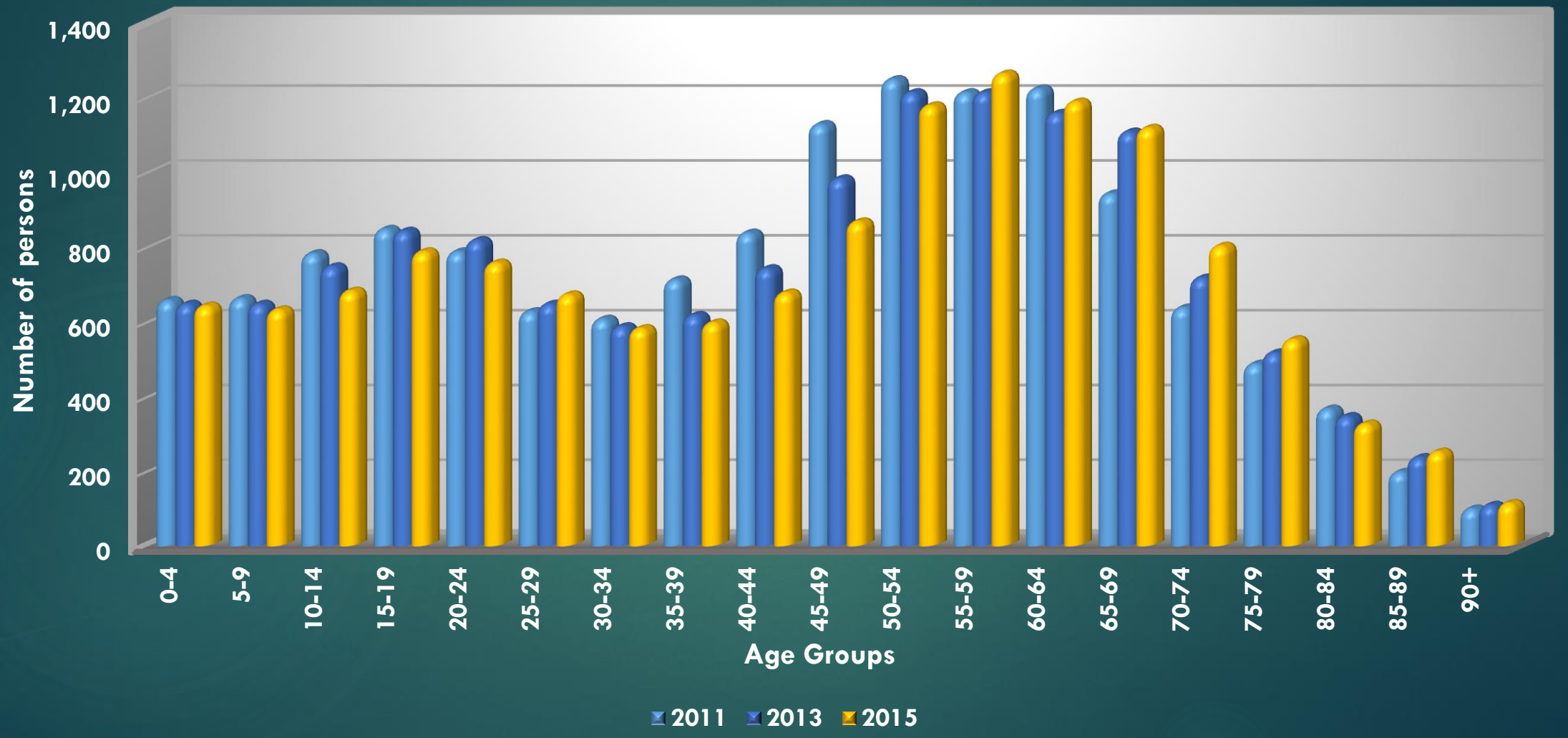


# 3.2.2. Population



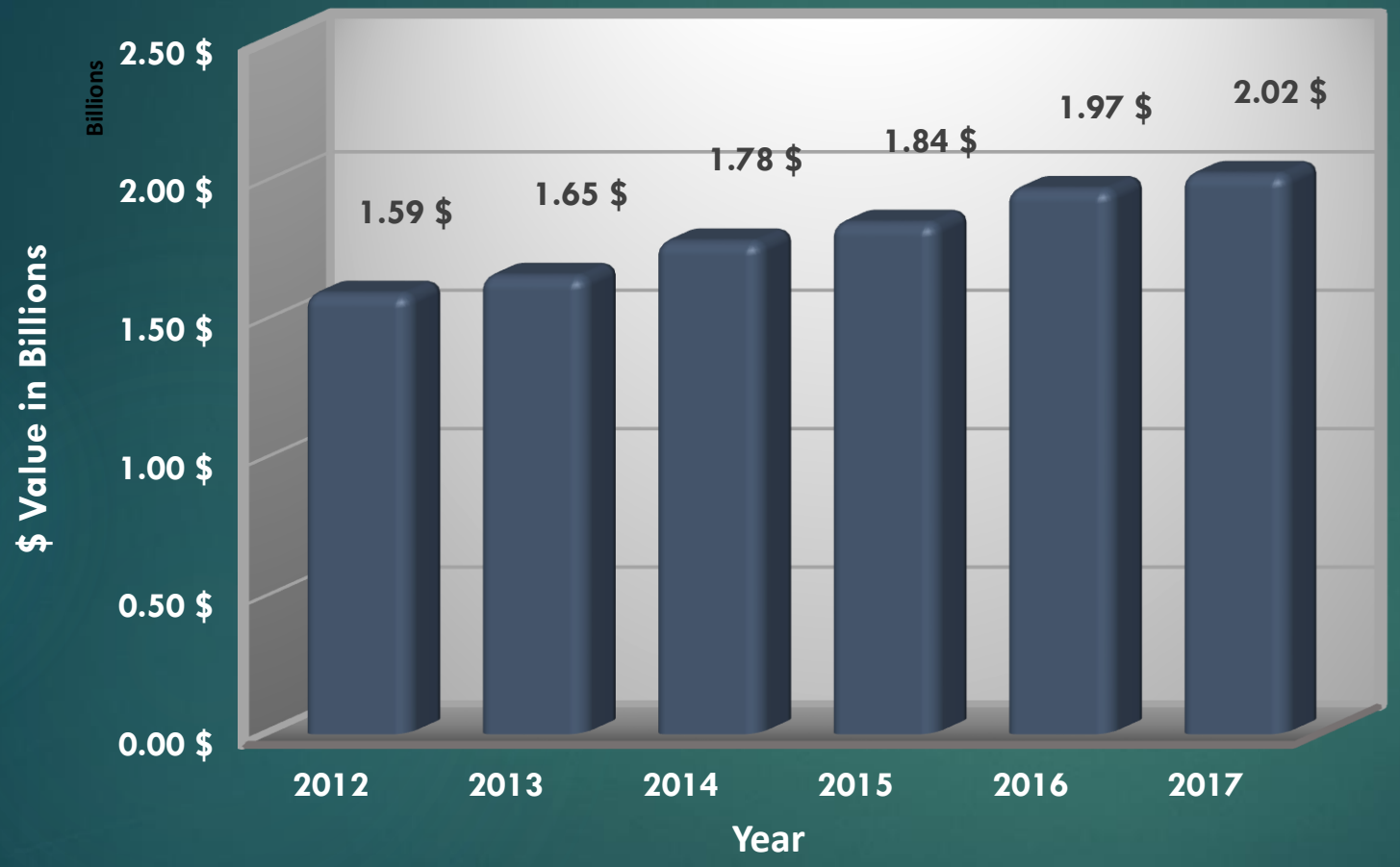
# 3.2.3. Demography





# 3.2.3. RFU

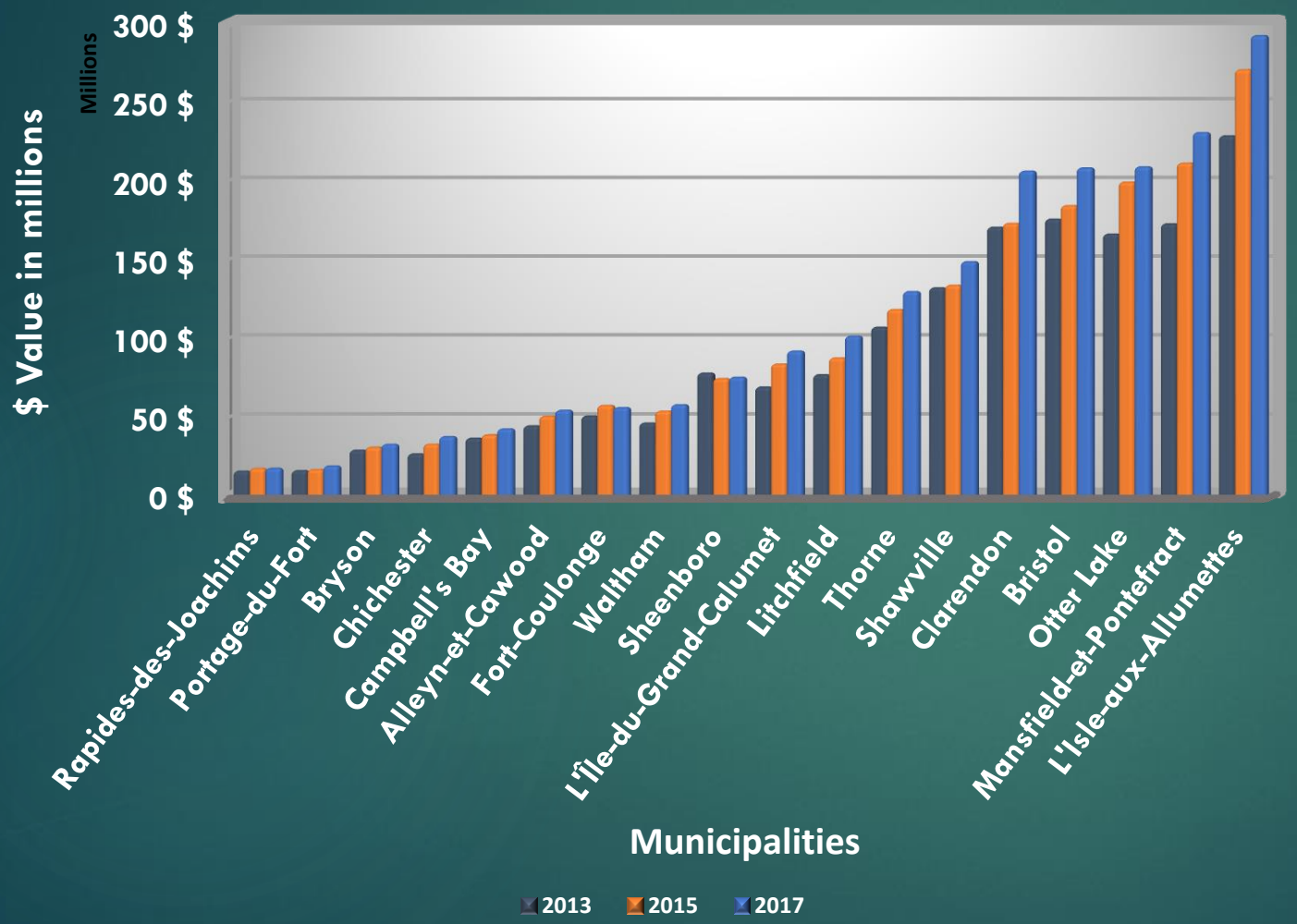





The RFU (Standardised land wealth) is in constant increase since 2012 for a 27% increase in value an average of over 5% per year.

# 3.2.3. RFU






There is a large disparity between the value of the Municipalities, Rapides-des-Joachims with a value of 18 million while L'Isle-aux-Allumettes has a value of more than 293 million; 8 Municipalities have an RFU less than 60 million while 5 have value of more than 200 million.

Increasing the RFU varies from 10% to over 30% and even 40% increase during this period.

# 4 History of Fire

# 4.2 Material losses



From 2011 to 2016 the average number of fires per year is 74 for an average rate of 5.16 fires per 1000 inhabitants compared to the average rate of 1.94 in Quebec for 2014.

For material losses, the annual average for the same period is $1,327,789 for average loss of $92 per citizen while the provincial average is $ 53.51 in 2014.

We find that fire statistics of the MRC Pontiac are higher than the provincial average.

# 5 Current Fire Services

# 5.1 Staff



| | | | | | fire department | | |
|---|---|---|---|---|---|---|---|
| **Services** | **Chief** | **Deputy chief** | **Captain** | **Lieutenant** | **Women** | **Men** | **Total** |
| **Bristol** | 1 | 0 | 0 | 0 | 3 | 18 | **22** |
| **B.GC.P. *** | 1 | 0 | 3 | 0 | 0 | 21 | **25** |
| **Campbell's Bay / Litchfield** | 1 | 0 | 2 | 3 | 1 | 20 | **27** |
| **Fort-Coulonge** | 1 | 1 | 2 | 2 | 1 | 11 | **18** |
| **Mansfield-et-Pontefract** | 1 | 1 | 1 | 2 | 0 | 30 | **35** |
| **Otter Lake** | 1 | 2 | 2 | 2 | 5 | 12 | **24** |
| **Pontiac West** | 1 | 2 | 3 | 0 | 1 | 20 | **27** |
| **Shawville / Clarendon** | 1 | 2 | 2 | 3 | 0 | 19 | **27** |
| **Thorne** | 1 | 2 | 2 | 1 | 0 | 12 | **18** |
| **Waltham** | 1 | 0 | 1 | 0 | 3 | 14 | **19** |
| **Total** | **10** | **10** | **18** | **13** | **14** | **177** | **242** |

# 5.2 The Fire Halls



On the territory of the MRC Pontiac, there are 17 fire halls, 10 main halls and 7 satellites halls.

Some of Fire halls need improvements (Bathroom facilities, offices and / or extensions of areas to facilitate the storage of vehicles and equipment).

On the contrary, these fire halls have very few entrance/exit constraints and there are no problems that would increase response times.

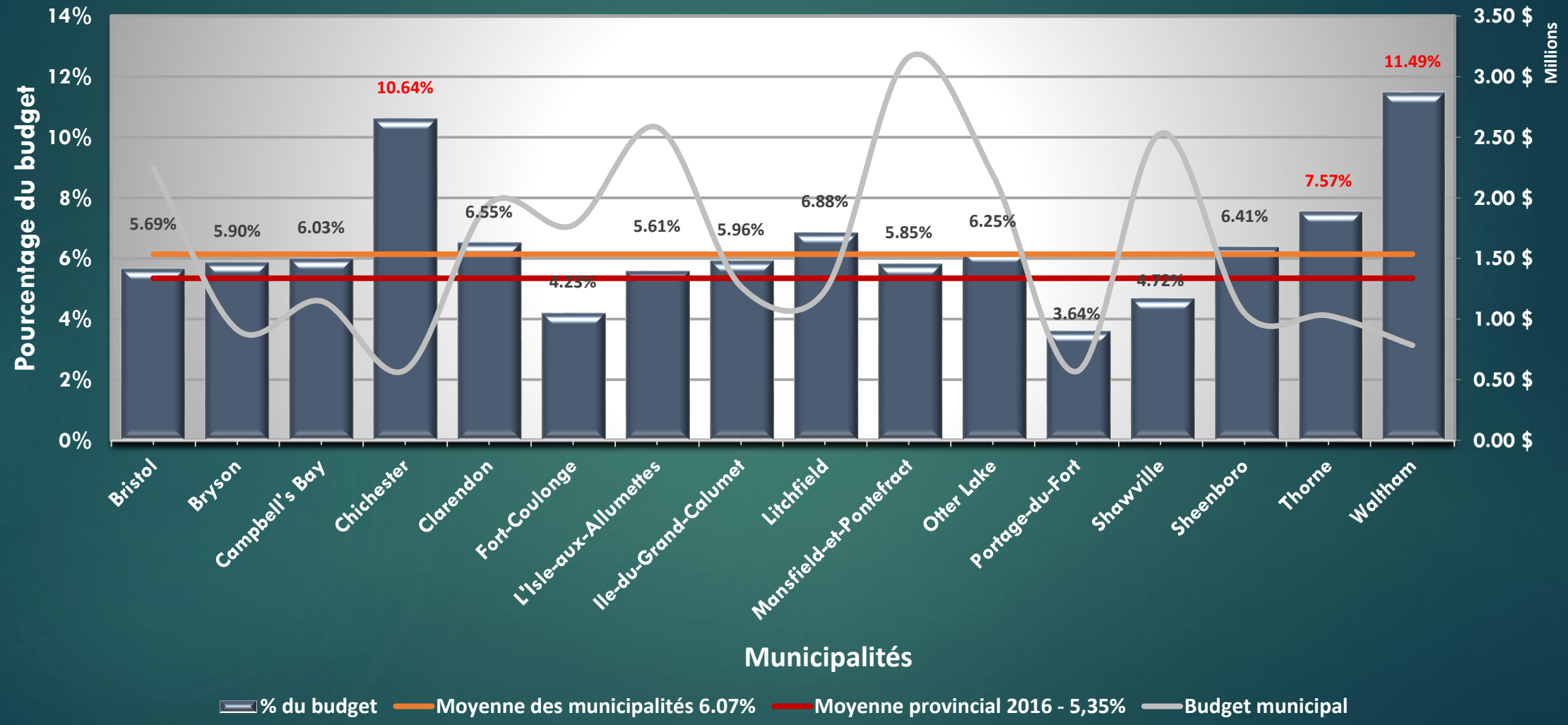
# 5.3 Budgets



- The total budget spent on fire protection for 2017 is approximately $1.5 million for all municipalities.
- This budget is about 6.07% of the total municipal budgets for 2017.
- The provincial average for the 2016 year was 5.35%.
- More than 40% of Quebec municipalities have a higher rate that of the MRC Pontiac.

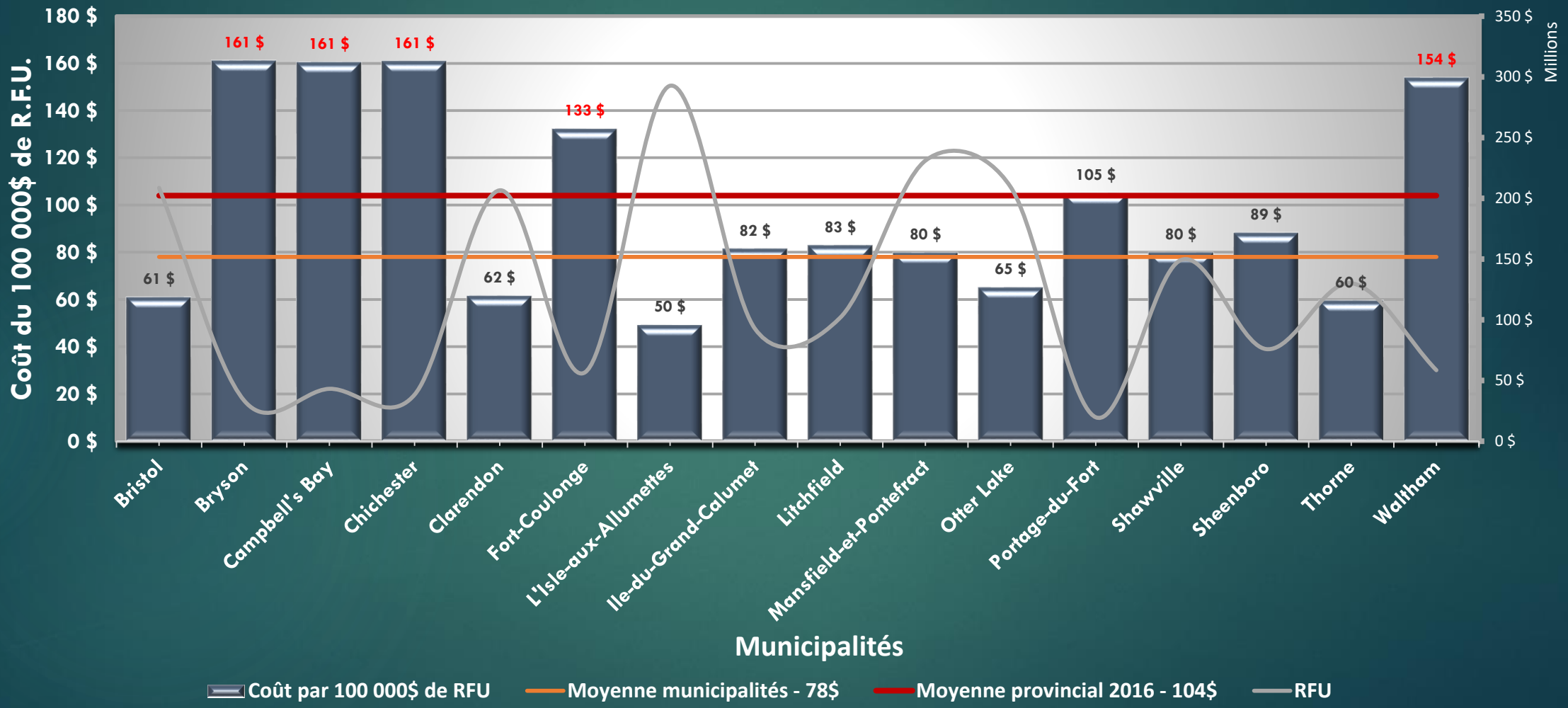
# 5.3 Budgets (% Municipal budget)





# 5.3 Budgets (By $ 100 000 RFU)





# 5.4 Vehicles



- All emergency vehicles of the MRC Pontiac are up to date with their annual inspections.
- The two ladder trucks have undergone and passed the annual test.
- In addition to the annual testing of pumps and regular mechanical maintenance (oil, brakes, etc.), emergency vehicles are subject to a mechanical inspection by the Société de l'assurance automobile du Québec (SAAQ).
- In the event of a temporary impossibility for a FSS to deploy its own vehicles for various reasons (mechanical breakdowns, planned maintenance or other situations of force majeure), the FSS assures its service by relying on a neighboring FSS immediately upon initial alert, while ensuring the optimal character of the strike force.
- Each year the FSS perform maintenance procedures and mandatory vehicle inspections as planned in" *Règlement sur les normes de sécurité des véhicules routiers* ". Maintenance is done every six months.

# 5.5 Agreements



- Municipalities of Campbell's Bay and Litchfield signed in 1978.
- Municipalities of Shawville and Clarendon signed in 1979.
- Municipalities of Bryson, L'Ile-du-Grand-Calumet and Portage-du-Fort signed in 2012. (BGCP).
- Municipalities of L'Isle-aux-Allumettes, Chichester and Sheenboro signed in 2016. Under the name of "Pontiac Ouest FSS."

# 5.5 Agreements



| SSI | Mutual Aid Agreements | | | | |
|---|---|---|---|---|---|
| **BGCP** | Campbell's Bay / Litchfield (EM) | | | | |
| **Bristol** | Municipality of Pontiac (MRC des Collines) (EM) | Shawville / Clarendon (EM) | | | |
| **Campbell's Bay / Litchfield** | Shawville / Clarendon (EAP) | Thorne (EM) | Otter Lake (EM) | Mansfield-et-Pontefract (EM) | Fort Coulonge (EM) |
| **Fort-Coulonge** | Campbell's Bay / Litchfield (EM) | Mansfield-et-Pontefract (EAP) | Waltham (EM) | | |
| **Mansfield-et-Pontefract** | Fort Coulonge (EAP) | Campbell's Bay / Litchfield (EM) | Waltham (EM) | | |
| **Otter Lake** | Thorne (EAT) | Campbell's Bay / Litchfield (EM) | Kazabazua (EM) | | |
| **Pontiac West** | Waltham (EM) | | | | |
| **Shawville / Clarendon** | Bristol (EM) | Campbell's Bay / Litchfield (EAP) | | | |
| **Thorne** | Otter Lake (EAT) | Campbell's Bay / Litchfield (EM) | | | |
| **Waltham** | Pontiac West (EM) | Mansfield-et-Pontefract (EM) | | | |

# 5.6 Telecommunications and dispatching



For the MRC, the processing of 9-1-1 emergency calls and fire dispatch is performed by the MRC des Collines de l'Outaouais distribution center .

The center is certified by the MSP.

The MRC has established an operational frequency that connects each FSS by radio link with the dispatch center. Each intervention vehicle has a mobile radio.

When FSS intervene jointly on the site of an intervention, their radio communication systems use a common frequency to facilitate the coordination the between different fire departments.

# 5.7.1 emergency interventions



The 10 responding services on the territory respond to an annual average of 225 emergency calls of all sorts.

The most:

- Shawville-Clarendon (44);
- Mansfield-et-Pontefract (40);
- Pontiac west (32).

The least:

- Thorne (7)
- Waltham (8)

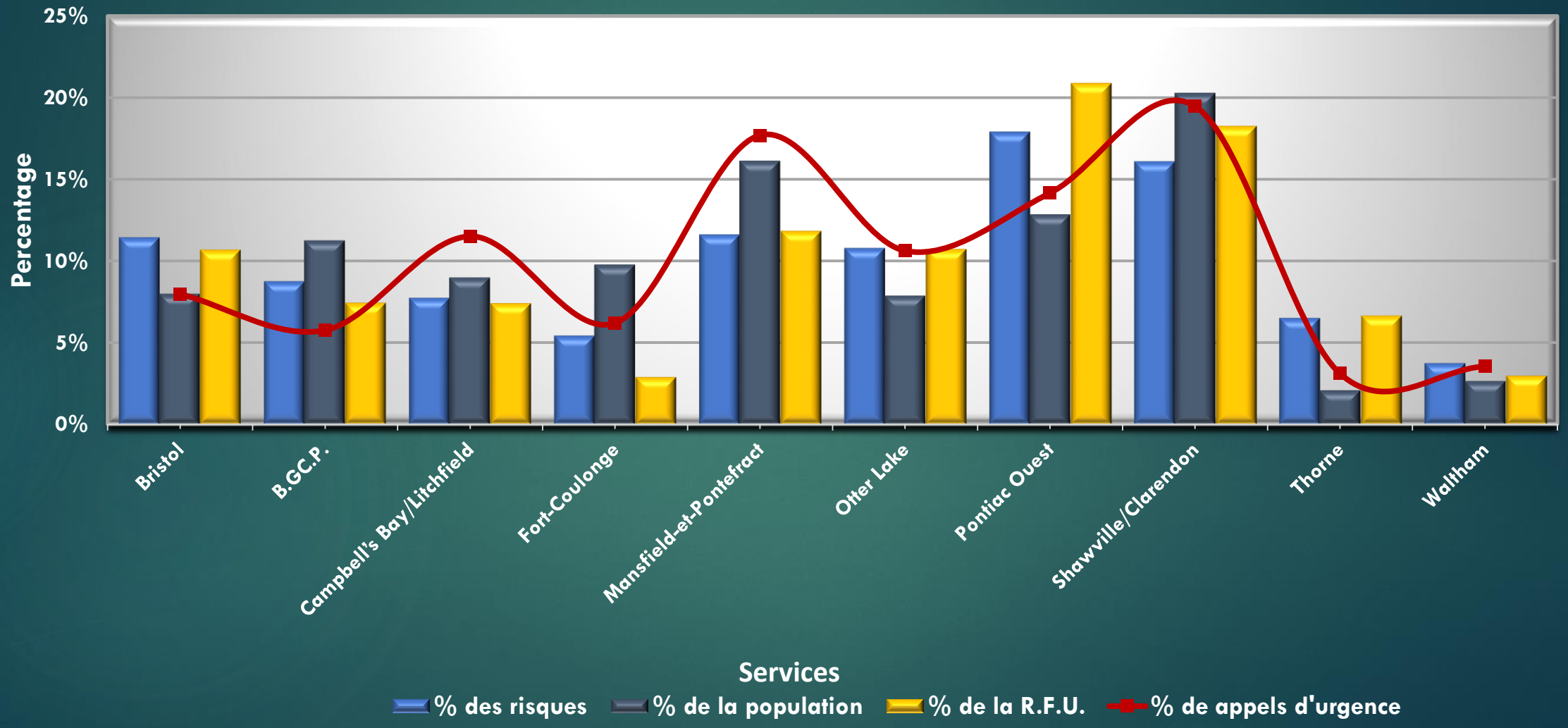
# 5.7.1 emergency interventions



| Call Types | Number | % |
|---|---|---|
| **Building fires and chimneys** | 54 | **24%** |
| **Outdoor fires** | 64 | **29%** |
| **Fire Alarm Systems** | 52 | **23%** |
| **Accidents and rescues** | 20 | 9% |
| **Fallen wires** | 10 | 5% |
| **Smoke Odor and checks** | 14 | 6% |
| **Other types of interventions** | 11 | 5% |
| **Total** | **225** | **100%** |

# 5.7.1 emergency interventions





# 5.7.2 First Responders



**The number of first responder calls is far superior to other emergency calls for services.**

| Services | 2012 | 2013 | 2014 | 2015 | 2016 | Average |
|---|---|---|---|---|---|---|
| **Campbell's Bay - Litchfield** | 169 | 149 | 146 | 128 | 113 | **141** |
| **Fort-Coulonge** | 35 | 64 | 65 | 58 | 48 | **54** |
| **Mansfield-et-Pontefract** | 75 | 88 | 77 | 70 | 93 | **81** |
| **Otter Lake** | 68 | 75 | 86 | 84 | 67 | **76** |
| **Total** | **347** | **376** | **374** | **340** | **321** | **352** |

# 5.8.1 Fire risk



The main risks of the territory are low and medium risk which are primarily residential, they represent more 98%the total risk of the territory. The high and very high risk represents only 2% and are mainly divided into the following types of building:

- Commercial buildings;
- Farms;
- Schools;
- Arenas;
- Churches;
- Retirement homes;
- Building materials recycling industries;
- Repair garages and service stations.

Most of these risks are considered to be large buildings (BGD) and require firefighter 2 training to intervene in case of fires

# 5.8.2.1 Rescue Extrication



Six services provide extricationservice, including:

- Shawville-Clarendon;
- Alleyn-et-Cawood;
- Campbell's Bay-Litchfield;
- Mansfield-et-Pontefract;
- Waltham;
- Pontiac West.

Each service serves a radius of about 10 to 30 km.

There are approximately 11 extrication interventions per year on the territory of the 10 services.

# 5.8.2.2 Water Rescue



The territory of the MRC Pontiac spans the Ottawa River over almost 200 km.

It has a high tourism potential in all seasons, including boating, sport fishing, canoeing and rafting.

There are several outfitters in both Ontario and Quebec, which offer rafting on the Ottawa River during the summer.

Only the B.G.C.P fire service has a water rescue team.

# 5.8.2.3 Isolated environment Rescue



The large areas of the MRC is a playground for snowmobilers and all terrain vehicle (ATVs) enthusiasts and hikers, and it's not only the people of the MRC Pontiac who use it, but many tourists from all over. The activities there are a significant contribution to the economy of the region.

The interventions in emergencies in these sectors are not not organized and the resources, both human and material, are not enough to cover the whole area of this great territory.

The MRC is awaiting government subsidies to proceed with the establishment of response teams.

For now, only the fire service Mansfield-et-Pontefract has a medical evacuation sled which it only uses on his territory; mainly in the winter season.

# 5.8.2.4 Rescue in confined space and height



The area has several places where there are confined spaces, they are mainly on farms, in wastewater collection sites and power stations.

Regarding height rescues, farms are potential problem locations as well as recreation and tourism territory where geography of mountains and cliffs present a certain fall risk in the forest.

Currently, there no teams for this type of intervention on the territory of the MRC Pontiac.

# 5.9.1 Training Requirements



All municipalities of the territory have a population of less than 25 000.

- Firefighter 1 within 48 months of hiring, they can act as apprentices;
- Non-urban Officer (ONU) within 48 months of their appointment;
- Operation of a pumper or elevating apparatus must have succeeded, prior to operation, the training for these vehicles.
- extrication teams must have successfully completed the training prior to operating such equipment.

Much effort is put in place by the MRC so that staff complies with all training requirements.

The number of firefighters being limited as well as the availability of staff do not facilitate the task of management. Taking into consideration that most firefighters are English speaking and the absence of instructors in the MRC makes it more difficult to find an instructor; the use of Internet is favored for these reasons.

# 5.9.2 Practice Requirements



The NFPA 1500 standard recommends:

- 24 hours of practice per year on building fires;
- 24 hours of practice per year for other types of fire.

Most fire departments have an annual program that consists of between 24 and 48 hours of practice and training on emergency response.

# 6 Findings

# 6.1 Municipalities



- Several elected officials:
  - Were unaware of the accountability of municipal councils with respect to the operation of their fire department;
  - did not really know what a Fire Department does and what its operations are;
  - Did not know the legal obligations that come with having a fire department.
- The majority of elected officials are satisfied with the current operations of the fire service on their territory;
- Some would like to be more involved in its management;
- Elected officials in general are open to explore new avenues to increase the level of service to the population;
- We detected what could be considered a parochial self-centerdness that could affect the establishment of new structures in fire protection.

# 6.2.1 Availability of personnel



As everywhere in Quebec, recruitment of new firefighters is difficult in all municipalities of the MRC.

The aging of the population and the number of hours of training are the main reasons.

The staff is less available, mainly during the day, considering the type and location of their employment which is often outside their municipality.

Regarding evenings and weekends, family activities and entertainment (Fishing, hunting, camping, team sports, travel, vacation, etc.) reduce the availability of staff.

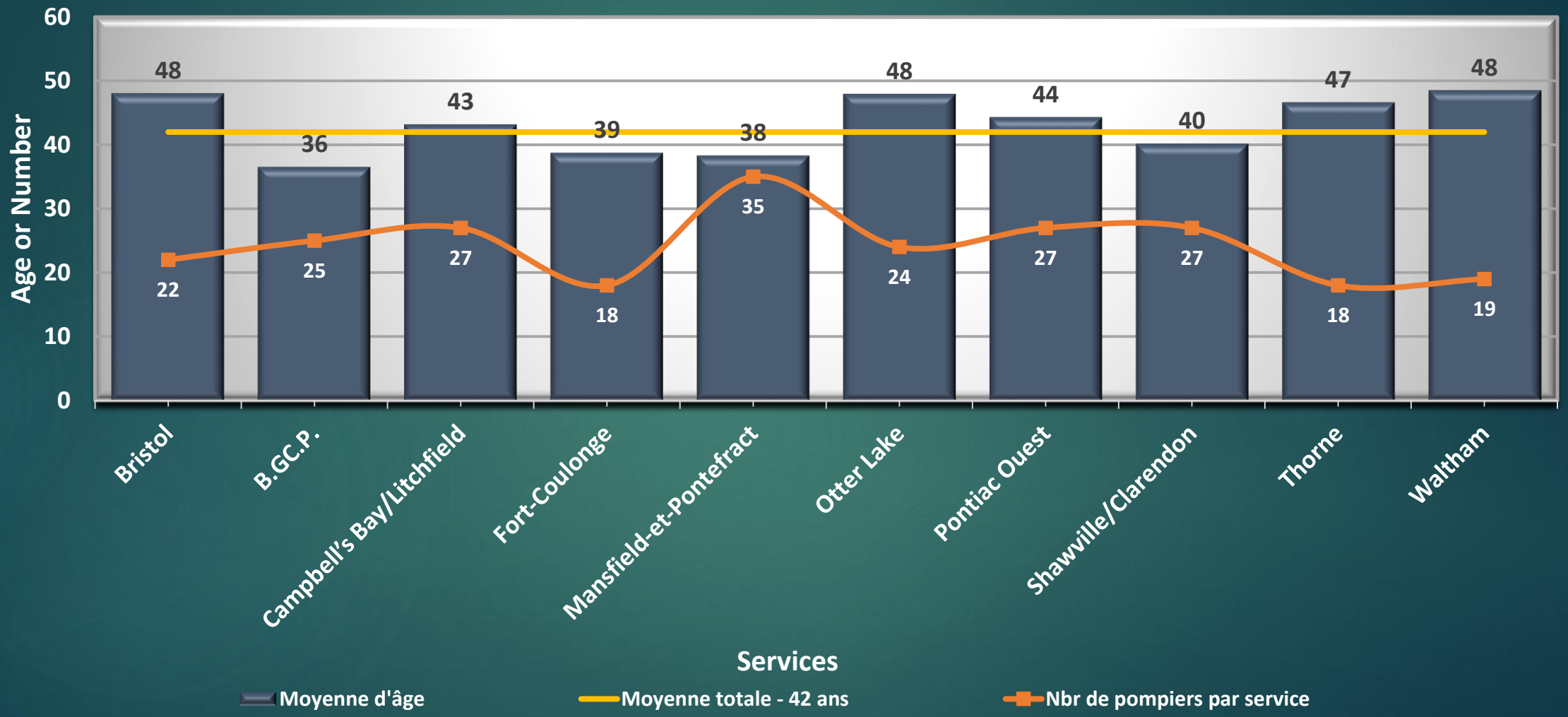
# 6.2.2 Training



| Services | grandfather clause | firefighter 1 | MDO | Self rescue | Pump Operator | UNO | extrication * | Apparatus elevation ** | Rescue*** | Personel | Officer |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bristol | 7 | 9 | 9 | 9 | 6 | 0 | 0 | 0 | 0 | 22 | 1 |
| B.GC.P. | 3 | 16 | 0 | 0 | 1 | 4 | 0 | 0 | 17 | 25 | 4 |
| Campbell's Bay / Litchfield | 0 | 27 | 17 | 0 | 18 | 6 | 0 | 6 | 0 | 27 | 5 |
| Fort-Coulonge | 1 | 12 | 0 | 0 | 7 | 6 | 0 | 0 | 0 | 18 | 6 |
| Mansfield-et-Pontefract | 0 | 29 | 20 | 27 | 11 | 6 | 12 | 0 | 0 | 35 | 5 |
| Otter Lake | 5 | 16 | 8 | 0 | 5 | 3 | 0 | 0 | 0 | 24 | 7 |
| Pontiac West | 2 | 25 | 5 | 5 | 8 | 8 | 7 | 0 | 0 | 27 | 6 |
| Shawville / Clarendon | 0 | 24 | 12 | 11 | 14 | 7 | 14 | 0 | 0 | 27 | 8 |
| Thorne | 5 | 10 | 8 | 9 | 2 | 2 | 0 | 0 | 0 | 18 | 6 |
| Waltham | 7 | 12 | 2 | 0 | 9 | 1 | 9 | 0 | 0 | 19 | 2 |
| Total | 30 | 180 | 81 | 61 | 81 | 43 | 42 | 6 | 17 | 242 | 50 |
| Percentage | 12% | 74% | 33% | 25% | 33% | 86% | 31% | 11% | 68% | | |

# 6.2.3.1 Age of personnel





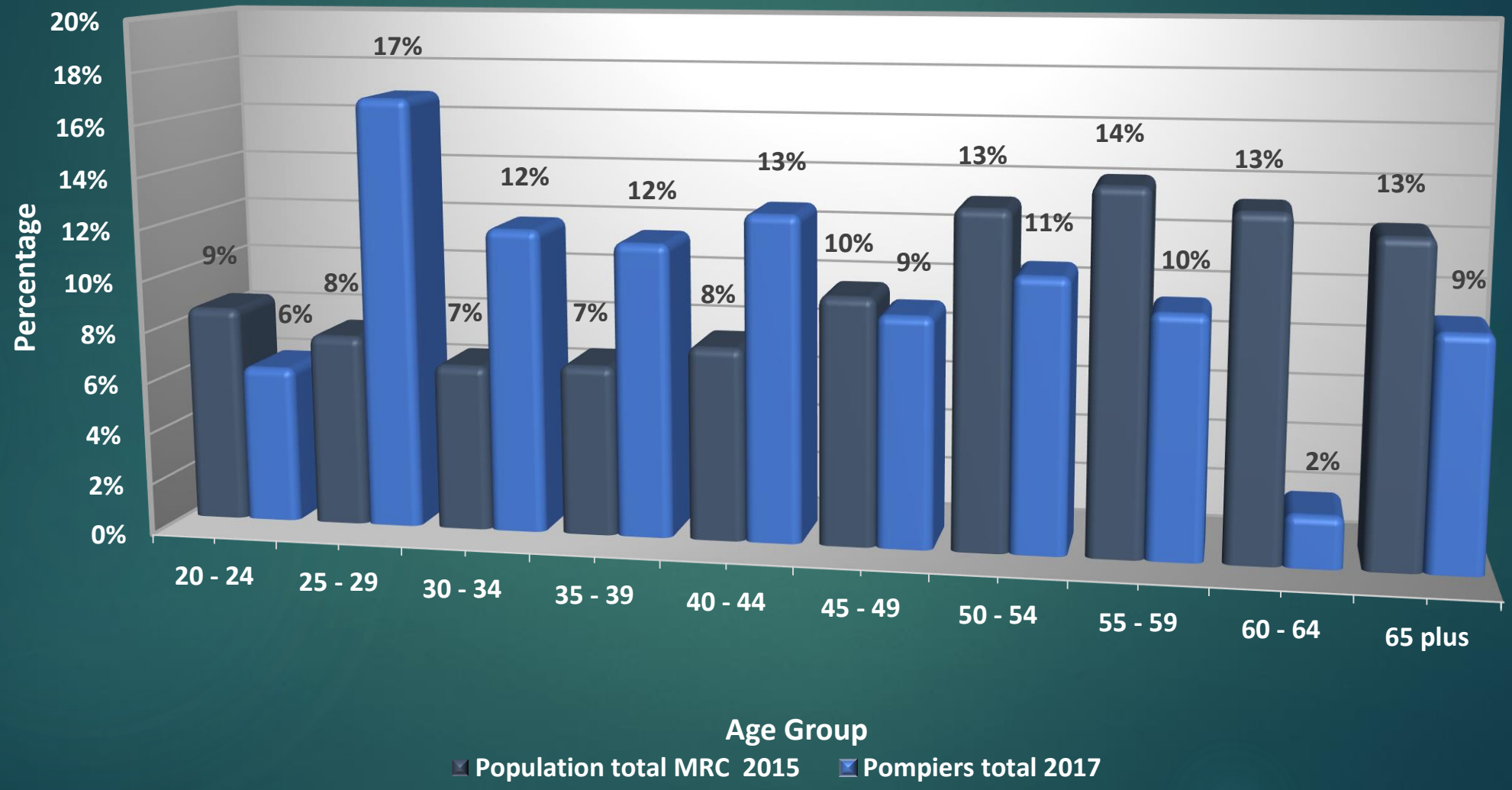
# 6.2.3.1 Age of personnel



| Age groups | Bristol | B.GC.P. | Campbell's Bay / Litchfield | Fort-Coulonge | Mansfield-et-Pontefract | Otter Lake | Pontiac West | Shawville / Clarendon | Thorne | Waltham | Total | Percentage |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **20-24** | 2 | 3 | 1 | 3 | 3 | 0 | 1 | 1 | 1 | 1 | **15** | **6%** |
| **25-29** | 3 | 8 | 4 | 2 | 7 | 3 | 4 | 5 | 2 | 3 | **41** | **17%** |
| **30-34** | 1 | 2 | 8 | 1 | 4 | 1 | 5 | 6 | 0 | 0 | **29** | **12%** |
| **35-39** | 2 | 1 | 1 | 3 | 7 | 5 | 1 | 3 | 1 | 4 | **28** | **12%** |
| **40-44** | 1 | 5 | 1 | 3 | 6 | 3 | 3 | 1 | 5 | 2 | **31** | **13%** |
| **45-49** | 1 | 2 | 0 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | **22** | **9%** |
| **50-54** | 4 | 1 | 5 | 1 | 1 | 2 | 5 | 7 | 0 | 0 | **26** | **11%** |
| **55-59** | 2 | 1 | 5 | 2 | 1 | 2 | 2 | 2 | 4 | 2 | **23** | **10%** |
| **60-64** | **1** | **0** | **0** | **0** | **1** | **2** | **1** | **0** | **0** | **0** | **5** | **2%** |
| **Over 65** | **5** | **1** | **2** | **0** | **2** | **3** | **2** | **0** | **2** | **5** | **22** | **9%** |
| **Total** | **22** | **25** | **27** | **18** | **35** | **24** | **27** | **27** | **18** | **19** | **242** | **100%** |

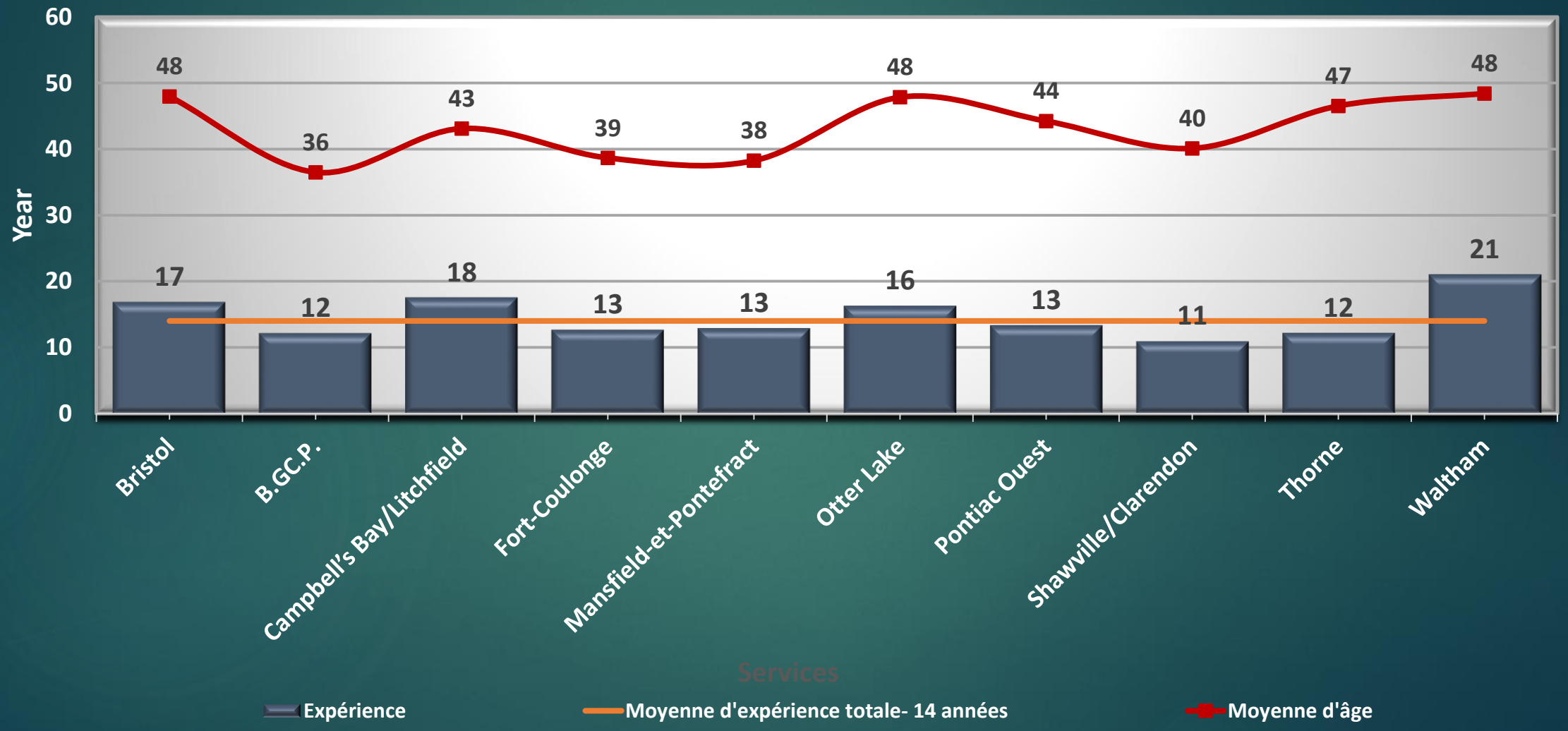
# 6.2.3.1 Age of personnel





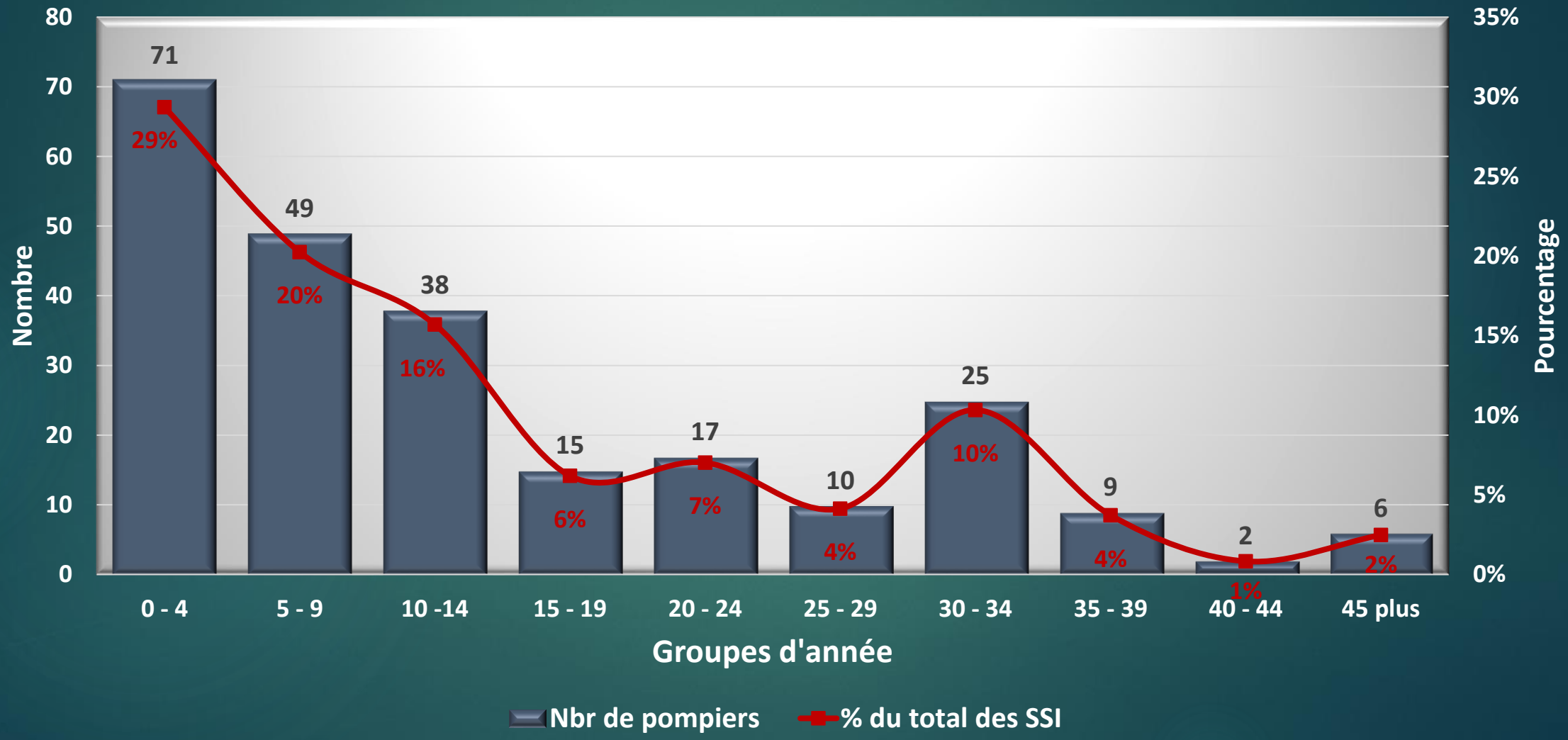
# 6.2.3.2 Experience of personnel





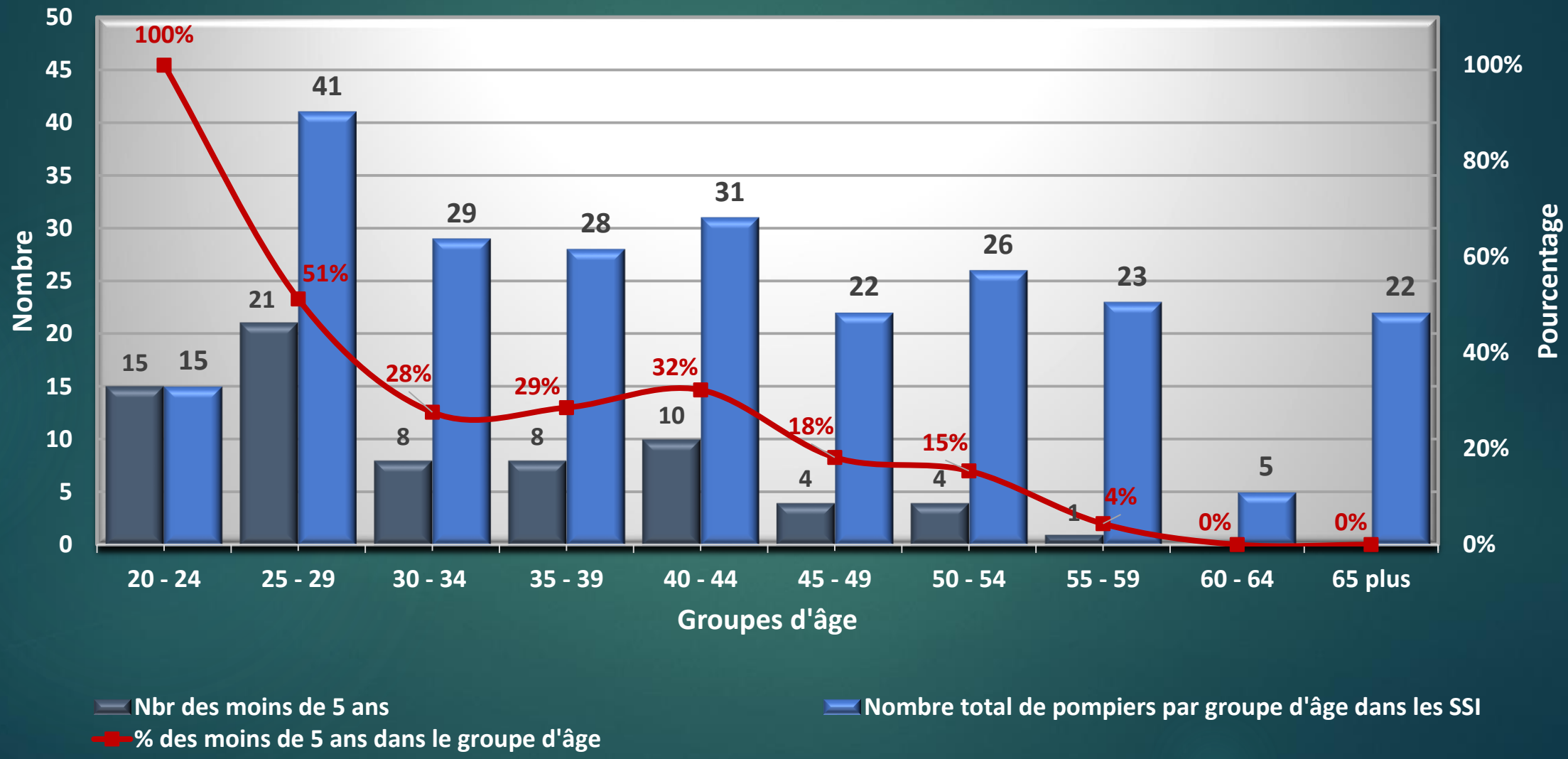
# 6.2.3.2 Experience of personnel





# 6.2.3.2 Less than 5 years





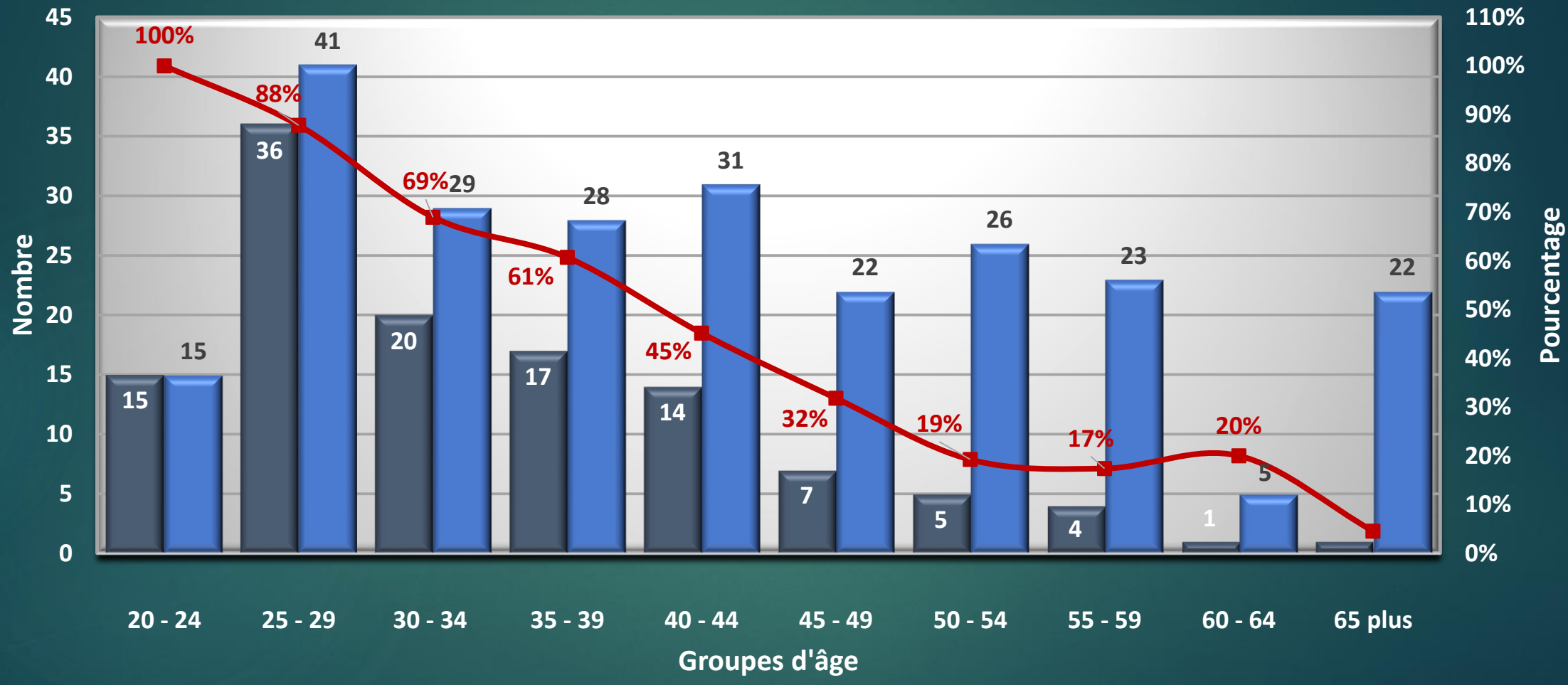
# 6.2.3.2 Hiring 2013-2017



| Service | 2013 | 2014 | 2015 | 2016 | 2017 | Total | Personnel Total | % of recruitment |
|---|---|---|---|---|---|---|---|---|
| **Bristol** | 3 | 1 | 4 | 0 | 0 | **8** | **22** | **36%** |
| **B.GC.P.** | 1 | 1 | 4 | 2 | 0 | **8** | **25** | **32%** |
| **Campbell's Bay / Litchfield** | 1 | 2 | 2 | 1 | 0 | **6** | **27** | **22%** |
| **Fort-Coulonge** | 1 | 1 | 2 | 1 | 1 | **6** | **18** | **33%** |
| **Mansfield-et-Pontefract** | 2 | 0 | 5 | 1 | 0 | **8** | **35** | **23%** |
| **Otter Lake** | 0 | 5 | 3 | 0 | 0 | **8** | **24** | **33%** |
| **Pontiac West** | 0 | 0 | 4 | 0 | 0 | **4** | **27** | **15%** |
| **Shawville / Clarendon** | 2 | 2 | 1 | 2 | 0 | **7** | **27** | **26%** |
| **Thorne** | 1 | 6 | 0 | 2 | 1 | **10** | **18** | **56%** |
| **Waltham** | 0 | 0 | 5 | 0 | 1 | **6** | **19** | **32%** |
| **Total** | **11** | **18** | **30** | **9** | **3** | **71** | **242** | **29%** |

# 6.2.3.2 Less than 10 years





# 6.2.5 Employee Remuneration



| Service | Intervention rate | Minimum number of hours per call | Training firefighter 1 | Meetings | Practice |
|---|---|---|---|---|---|
| **Bristol** | $ 12 | No | | $ 12 | $ 12 |
| **BGCP** | $ 15 | No | | $ 15 | $ 15 |
| **Campbell's Bay / Litchfield** | $ 14.98 | No | $1200 for FF1 | $ 14.98 | $ 14.98 |
| **Fort Coulonge *** | $ 9.51 | No | $ 9.51 / hour | $ 9.51 | $ 9.51 |
| **Otter Lake** | $ 13 | 1 hour | | $ 0.00 | $ 13 |
| **Mansfield-et-Pontefract *** | $ 8.01 | No | $ 1200 for FF1 | $ 8.01 | $ 8.01 |
| **Pontiac West** | $ 15 | 4 hours | | $ 0.00 | $ 15 |
| **Shawville / Clarendon** | $ 15.30 | 2 hours | $ 500 / Section FF1 (x4) | $ 0.00 | $ 11.22 |
| **Thorne** | $ 15 | 3 hours | $ 500 for FF1 | $ 0.00 | $ 15 |
| **Waltham** | $ 15 | 2 hours | | $ 15 | $ 15 |

# 6.2.5 Remuneration of Directors



| Service | Status | Intervention rate | annual compensation | Working hours per week | Full-time |
|---|---|---|---|---|---|
| **Bristol** | Full-time | | | *16 | 22 $ 639 |
| **BGCP** | Part-time | $ 15 | $ 9 360 | | |
| **Campbell's Bay / Litchfield** | Full-time | | | *16 | 21 $ 960 |
| **Fort Coulonge** | Part-time | $ 9.51 | $ 5 000 | | |
| **Otter Lake** | Part-time | $ 14 | $ 14 859 | | |
| **Mansfield-et-Pontefract** | Part-time | | $ 15 000 | | |
| **Pontiac West** | Full-time | $ 25 | | 32 | $ 50,000 |
| **Shawville / Clarendon** | Full-time | | | 40 | $ 60,705 |
| **Thorne** | Part-time | $ 15 | $ 5 330 | | |
| **Waltham** | Part-time | $ 15 | | | |
| **Total** | | | **$ 49,549** | | **155 $ 304** |

# 6.2.5.2 External On-Call



The external on-call consists of assuring that personnel is available within a certain distance from their fire hall to ensure their presence quickly during emergency calls.

The Shawville-Clarendon FSS.

- Between the Victoria day in May and Labor Day in September;
- Between Friday at 6 pm and Sunday at 9 pm.
- Three firefighters on-call:
  - 1 officer
  - 1 pump operator
  - 1 firefighter;
- Remuneration of $ 100 and a minimum of 4 hrs / call.

# 6.3 Types of vehicles



| Service | pumper | Pumper Tanker | Tanker | Ladder Truck | Equipment Truck | first Response | Total |
|---|---|---|---|---|---|---|---|
| **Bristol** | 1 | 1 | 1 | 0 | 1 | 0 | **4** |
| **BGCP** | 2 | 1 | 0 | 0 | 0 | 0 | **3** |
| **Campbell's Bay / Litchfield** | 1 | 1 | 1 | 1 | 1 | 1 | **6** |
| **Fort-Coulonge** | 1 | 0 | 0 | 0 | 1 | 0 | **2** |
| **Mansfield-et-Pontefract** | 0 | 2 | 1 | 0 | 1 | 1 | **5** |
| **Otter Lake** | 0 | 1 | 0 | 0 | 1 | 0 | **2** |
| **Pontiac West** | 2 | 0 | 2 | 0 | 1 | 0 | **5** |
| **Shawville / Clarendon** | 1 | 0 | 2 | 1 | 1 | 0 | **5** |
| **Thorne** | 1 | 0 | 1 | 0 | 1 | 0 | **3** |
| **Waltham** | 1 | 0 | 1 | 0 | 1 | 0 | **3** |
| **Total** | **10** | **6** | **9** | **2** | **9** | **2** | **38** |

# 6.3 Vehicle Age



| Vehicle Types | 0-10 years | 11-20 years | 21-30 years | 30 and over | Total |
|---|---|---|---|---|---|
| pumper | 1 | 3 | 6 | 0 | 10 |
| Pumper Tanker | 5 | 0 | 1 | 0 | 6 |
| Tanker | 3 | 2 | 4 | 0 | 9 |
| aerial ladder | 0 | 0 | 2 | 0 | 2 |
| equipment truck | 2 | 2 | 1 | 4 | 9 |
| first responder vehicle | 0 | 1 | 1 | 0 | 2 |
| Total | 11 | 8 | 15 | 4 | 38 |

# 6.3 Vehicle Renewal



- The vehicles of the fire services are rarely used and expensive to purchase;
- It is very common to encounter vehicles with over 30 years of use;
- It is important to establish a replacement schedule;
- The recommended lifetime:
  - Of a Pumper is 20 years according to insurers;
  - Is acceptable to use for a period of 25-30 years provided that the vehicle meets the requirements at its annual testing;
  - For vehicles over 20 years, it is often difficult to find replacement parts in the event of mechanical breakdown;
  - A lifetime of 25-30 years is also acceptable for tankers, the aerial ladders and equipment vehicles;
  - For the other vehicles, A mileage 150 000 kilometers or 15 years could be the standard in order to ensure a good operation.

# 6.3 Vehicle Renewal



Between 2007 and 2018, Fire departments have acquired 12 new vehicles are:

- 4 pumpers;
- 5 pumpers tankers;
- 2 tankers;
- 1 equipment trucks

If a replacement schedule had been in place over the same period, 5 additional vehicles should have been replaced:

- 1 tankers;
- 4 equipment trucks.

# 6.3 Vehicle Renewal



The estimated cost for the purchase of a new vehicle based on the 2017 values are:

- Pumper $ 350 000
- Pumper Tanker $ 350 000
- Tanker $ 200 000
- Equipment Truck $ 200 000
- Aerial Ladder Truck $ 1 000 000
- First Responder Vehicle $ 50 000.

# 6.3 Renewal 2018-2028



| Service | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
|---|---|---|---|---|---|---|---|
| Pumper | 1 | 0 | 0 | 0 | 1 | 1 | 3 |
| Pumper Tanker | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Tanker | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Aerial Ladder | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Equipment Truck | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| First Response | 1 | 0 | 1 | 0 | 0 | 0 | 3 |
| **Total** | **8** | **0** | **3** | **0** | **1** | **2** | **14** |
| **Estimated cost** | **$ 2,150,000** | **0** | **$ 750 000** | **0** | **$ 350 000** | **$ 1,350,000** | **$ 4.6 million** |

For the period from 2024 to 2028, three pumpers, equipement trucks and two tankers will be due to be changed at an estimated cost of 1 650 000 $.

A total of 20 more vehicles over 10 years represents 53% of the fleet of current vehicles; this represents an investment of approximately $ 6.25 million for new vehicles in 2017 values.

# 6.3 Replacement Schedule Proposed



| Fire Safety Services | Vehicle types | Vehicle number | Year of construction | Age in 2018 | Year Replacement |
|---|---|---|---|---|---|
| BGCP | pumper | 217 | 1997 | 21 | 2027 |
| | Pumper Tanker | 218 | 2014 | 5 | 2044 |
| | pumper | 219 | 1997 | 21 | 2027 |
| Bristol | pumper | 211 | 1993 | 25 | 2023 |
| | Pumper Tanker | 221 | 2010 | 8 | 2040 |
| | equipment truck | 511 | 1986 | 31 | 2018 |
| | Tanker | 612 | 1996 | 22 | 2026 |
| Campbell's Bay / Litchfield | pumper | 2110 | 2007 | 11 | 2037 |
| | aerial ladder | 3111 | 1993 | 25 | 2023 |
| | equipment truck | 5110 | 1980 | 37 | 2018 |
| | Pumper tanker | 2111 | 2016 | 1 | 2046 |
| | Tanker | 6111 | 1989 | 29 | 2018 |
| | first Responder | 8110 | 2002 | 16 | 2018 |
| Fort-Coulonge | pumper | 2118 | 1995 | 23 | 2025 |
| | equipment truck | 5118 | 2014 | 4 | 2044 |
| Mansfield-et-Pontefract | Pumper Tanker | 2112 | 2011 | 7 | 2041 |
| | Pumper Tanker | 2212 | 1990 | 28 | 2020 |
| | equipment truck | 5112 | 1995 | 23 | 2025 |
| | Tanker | 6112 | 1990 | 28 | 2020 |
| | first Responder | 8112 | 2005 | 13 | 2020 |
| Otter Lake | Pumper Tanker | 215 | 2008 | 10 | 2038 |
| | equipment truck | 515 | 2009 | 9 | 2039 |
| Pontiac Ouest | pumper | 2117 | 2007 | 11 | 2037 |
| | Tanker | 6117 | 2010 | 8 | 2040 |
| | pumper | 2115 | 2014 | 4 | 2044 |
| | equipment truck | 5115 | 2006 | 12 | 2036 |
| | Tanker | 6115 | 2006 | 12 | 2036 |
| | | | | | |
| Shawville / Clarendon | pumper | 213 | 1992 | 26 | 2022 |
| | aerial ladder | 313 | 1989 | 29 | 2018 |
| | Tanker | 613 * | 2018 | 0 | 2048 |
| | Tanker | 623 | 2002 | 16 | 2032 |
| | equipment truck | 513 | 1999 | 19 | 2029 |
| Thorne | pumper | 214 | 2007 | 11 | 2037 |
| | equipment truck | 514 | 1984 | 34 | 2018 |
| | Tanker | 614 | 2015 | 3 | 2045 |
| Waltham | pumper | 2114 | 1989 | 29 | 2018 |
| | equipment truck | 5114 | 1985 | 33 | 2018 |
| | Tanker | 6114 | 1995 | 23 | 2025 |

# 6.4.1 Mobilization Intervention



Dispatch Center MRC des Collines de l'Outaouais.

Each service uses his own alert system that works using either pagers or portable radios.

Bristol and Waltham use pagers that operate on the cellular network.

Other pager systems use their own networks with their own designated frequency; in general these networks are effective over a radius of 12 to 15 km of the transmitting antenna; the surrounding terrain may affect the distance of the transmitters.

Where cellular networks are available, it is possible to have an alert via TEXT or SMS MESSAGE; the cellular coverage is very inconsistant in the MRC which makes use of a cell apparatus as mobilization process unreliable.

According to comments, there are places where reception is difficult or even nonexistent. This system does detect the number of available firefighters or the number of firefighters that have been alerted.

# 6.4.2 Telecommunications



The county wide communication system is a frequency that belongs to the MRC.

Its efficiency does not cover 100% of the territory.

A few Complaints are regularly forwarded to the MRC during the year.

During the initial tender for the establishment of this network, the minimum requirement was that a mobile installed in a vehicle parked outside the fire hall communicate clearly; no requirement for the use of portable radios.

On the site of emergency calls the staff communicates with a simplex frequency between mobiles as well as portable radios.

Only communication on the MRC frequency is recorded. This recording is done by the MRC Collines de l'Outaouais dispatch center.

# 6.4.3 Strike Force



Minimum strike force of 8 firefighters within a dealy calculated by the distance to the incident location.

It is impossible for the majority of services to reach the strike force during weekdays considering most firefighters must travel outside their territory for work.

The availability of personnel is very variable in the other periods due to other situations (summer holidays, hunting, fishing, etc.).

The management of the fire services have implemented automatic mobilization protocols with other fire services depending on the expected availability of staff.

All services are able to mobilize a minimum of 4 firefighters for he initial alert at all times.

There is no guarantee these firefighters have the minimum training of "Firefighter 1" and that there is of them qualified as Pumper Operator.

# 6.4.5 Intervention standardization



No standardization of operations at interventions across the territory.

There are services that have operating procedures that resemble one another while others work completely differently and others are just simply unorganized.

This is problematic on interventions where several services have to work together.

The lack of standardization has direct impact on the command and management of the response.

In some areas, it is possible to find more than one incident command post at an intervention site and conversely the total absence a command post at others.

Inter-service practices would help promote standardization during interventions.

During meetings with the municipalities, it was mentioned that these practices are almost non-existent in the territory.

# 6.4.6 Guidelines, procedures and policies



There are very few and even no guidelines, written procedures or policies whether for administrative management, for safety of personnel or for intervention.

The absence of written procedures encourages improvisation when working mainly in the absence of management, because the entire staff has not received accurate guidelines on the procedures and rules in the various situations that may occur.

# 6.4.7.1 SCBA Equipment



| Municipality | Number of SCBA | Brand of SCBA | Total bottles | Successful Annual testing SCBA (Yes No) |
|---|---|---|---|---|
| **B.GC.P.** | 4 | Survivair | 28 | Yes |
| | 7 | MSA | | Yes |
| **Bristol** | 8 | Scott | 25 | Yes |
| **Campbell'S Bay / Litchfield** | 14 | Scott | 50 | Yes |
| **Fort-Coulonge** | 20 | Scott | 50 | Yes |
| **Mansfield-et-Pontefract** | 15 | Scott | 57 | Yes |
| **Otter Lake** | 18 | Survivair | 19 | Yes |
| | 1 | Scott | | Yes |
| **Pontiac West** | 4 | Scott | 24 | Yes |
| | 17 | MSA | | Yes |
| **Shawville / Clarendon** | 14 | Scott | 50 | Yes |
| **Thorne** | 7 | Survivair | 25 | Yes |
| | 2 | Dragger | | Yes |
| **Waltham** | 8 | Scott | 14 | Yes |
| **Total** | 135 | - | 348 | - |

# 6.4.7.2 Hose Equipment



Services of Campbell's Bay, Mansfield-et-Pontefract, Pontiac Ouest and Shawville use High volume 4 inch hoses.

The 2.5 inch pipe threads of Campbell's Bay and Waltham are not equipped with the same threads as those of other services.

Their threads are CSA type used in Ontario, while other services have QST threads which are the norm in Quebec.

These two types of threads are not compatible and require the use of an adapter.

2.5 inch outputs on fire hydrants in Campbell's Bay require adapters if another department need to connect to them; 39 Hydrants on the territory of Campbell's Bay and none for Waltham.

# 6.4.7.3 Thermal Camera



Thermal Cameras ease the potential victim search and the movement of firefighters inside a building where the visibility is nil. It can also more quickly locate the seat of the fire and to check spread.

During a fire, there should be a minimum of two thermal cameras available on scene.

Services that have cameras:

- Campbell's Bay;
- Fort-Coulonge;
- Mansfield-et-Pontefract;
- Otter Lake;
- Pontiac Ouest;
- Shawville

# 6.5 Agreements



Currently, several municipalities have agreements for the management of their fire service:

- Shawville and Clarendon;
- Campbell's Bay and Litchfield;
- Bryson, Ile-du-Grand-Calumet and Portage-du-Fort (B.GC.P.);
- Chichester, L'Isle-aux-Allumettes and Sheenboro (Pontiac Ouest).

These municipalities are generally satisfied with their agreements and the quality their fire safety service.

Some elected officials question the management and operation of their service and would promote increased participation in management of their service.

It was also mentioned that despite the signed agreements, some municipal administrations are struggling to meet their commitments. Municipal administrations have issued reservations concerning coming together with certain neighbouring municipalities.

# 6.5 Agreements



For the municipalities of Fort Coulonge and Mansfield-et-Pontefract, It is surprising that they do not have a joint fire safety service due to there being less than 4 km between the two fire halls and Fort-Coulonge having a territory of only 2.96 $km^2$ and that this municipality is practically surrounded by the municipality of Mansfield-et-Pontefract.

Despite that the municipalities met with are satisfied with their service, they all agree that there is a need to make more integrations to meet their cover plan obligations and maintain a quality service for their population.

They are ready to participate, but not at any cost; the retention of their fire halls and not paying for others appears to be a priority that is unavoidable.

These municipalities have shown interested in creating intermunicipal boards to govern their fire service, though they have clearly stated that they had no interest in entrusting the management of fire services to the MRC.

# 7 Scenarios

# 7.1 Scenario 1 - Status quo



**Advantages**

- No change in the current operation;
- No adaptation to change;
- Everyone stays in his comfort zone;
- No additional obligation except those identified in fire protection plan;
- Municipal governments maintain full control of their service.

# 7.1 Scenario 1 - Status quo



Disadvantages (1/3) :

- Limited service for the population;
  - No guarantee of a minimum workforce;
  - Strike Force is harder to obtain;
  - Limited responsiveness and equipment;
- No standardization between services:
  - Intervention equipment;
  - Interventional procedures;
  - Strategies utilised;
  - Training of personnel;
  - The level of training;

# 7.1 Scenario 1 - Status quo



**Disadvantages (2/3) :**

- No spending optimization;
- No improvement of service to the population;
- Significant differences between services in both human and material resources;
- Managing a large number of mutual aid agreements;
- Difficulty maintaining a capacity to intervene in case of simultaneous calls;
- Setting up a recruitment strategy more difficult;
- More time spent on the management of services by the municipal administrators;

# 7.1 Scenario 1 - Status quo



Disadvantages (3/3) :

- The part-time fire chiefs that are no longer able:
  - To keep up to date in terms of new fire regulations;
  - To do medium to long term planning of their fire service;
  - To devote the time necessary for the administration and management of the service.
- Difficulty putting in place policies, procedures and guidelines;
- Inability to fully optimize the budgets for fire safety;
- Difficult to optimize the deployment of vehicles in different halls depending on their use;
- Ultimately, does not guarantee the health and safety of personnel; given the lack of workforce.

# 7.1 Scenario 1 - Status quo



**Considerations:**

**The status quo in the medium and long term, will have the effect of reducing the quality of service to the population, it will be difficult to implement standardization in management, operations, and equipment services.**

**10 service directions do not facilitate the creation of optimal mobilization procedures in case of disaster and regional coordination of fire safety resources.**

**Maintaining the status quo will make virtually impossible to really optimize the financial resources devoted to fire protection.**

# 7.2 Scenario 2 - 4 sectors



This scenario is a variant of the one presented in 2016 by Kevin Kluke, chief of Campbell's Bay Lichfield and Bristol and Lee Laframboise, chief of Shawville-Clarendon fire services.

These proposed separation of the MRC in two areas east and west each with two main fire halls of which could be attached one or more satellite stations.

# 7.2 Scenario 2 - 4 sectors



This mode of operation is the most economical, because it does not require the creation of an additional body.

The scenario is the creation of 4 services for the municipalities studied, as follows:

- West Sector - Pontiac Ouest and Waltham
- West-central sector- Mansfield-et-Pontefract and Fort-Coulonge
- Center Sector - Campbell's Bay, Bryson, Grand Calumet, Portage-du-Fort, Litchfield and Otter Lake.
- East Sector - Bristol, Clarendon, Shawville and Thorne.

# 7.2 Scenario 2 - 4 sectors



**Advantages:**

- Decrease in the number of service directions, four heads;
- increased possibility of standardization of operations on the territory;
- easier management of mutual aid agreements;
- Facilitating the possibility of maintaining coverage in case of simultaneous calls;
- Possibility of implementation of policies, guidelines and similar procedures;
- Possibility of standardization of equipment  with more ease;
- Less time spent managing fire service by municipal administrators;
- Setting up a common strategy for easier recruitment;
- Possibility of standardizing the method of remuneration of personnel;
- Some optimizations of  resources, including human, material and monetary resources;
- Possibility of increasing the number of firefighters in the fire halls where there is more population to overcome the lack of staff in the other;
- Revaluation of resource requirements for each service.

# 7.2 Scenario 2 - 4 sectors



**Disadvantages:**

- Period of adaptation for the personnel;
- Period of upgrading different fire halls;
- Reorganization of all services;
- Sharing control of service with other municipalities;
- Obligation to follow others.

# 7.3.1 Scenario 3 – Intermunicipal board



Advantages (1/2) :

- Pooling of the management of services;
- Management by a board that is only concerned with fire;
- Increased response capacity with the introduction of multi response fire halls;
- Allows personnel from on hall to intervene on the territory of another hall when available during work hours;
- Possibility of increasing the number of firefighters in the fire halls where there is more population to overcome the lack of staff in another;
- Increased service to the population;
- A single management promotes the optimization of human and material resources;

# 7.3.1 Scenario 3 - Intermunicipal board



Advantages (2/2) :

- Facilitates the implementation of standardization of:
  - equipment;
  - response procedures;
  - training of personnel;
  - Practices.
- Increases health and safety for personnel;
- Better coordination of training and pracice;
- Establishment of a more effective command process;
- Promotes standardization of service mandates;
- Reduces the time spent by the municipal administration and municipal council to manage the fire department;
- Requires each municipality to invest in the service according to its share.

# 7.3.1 Scenario 3 - Intermunicipal board



**Disadvantages:**

- Obligation to set up a new structure;
- Adapting to change for staff;
- Municipalities have less control over the service;
- Difficulty of agreeing on the setup;
- Obligation to participate in the cost of operations and assets on a share;
- Loss of autonomy or control over the level of service to the public;
- Obligation to follow others.

# 7.3.1 Scenario 3 - Intermunicipal board



**Implications (1/2) :**

- Agree on the level of service that will be offered to the population;
- Identifying needs in human, material and general mandates;
- Find a method, fair to all, to determine shares;
- The establishment of a single command structure;
- The fair and equitable assessment value of each service;
- Municipalities will have to have confidence in the board of directors to:
  - manage the service;
  - define the level of service offered to the population.

# 7.3.1 Scenario 3 - Intermunicipal board



**Implications (2/2) :**

- The most expensive solution;
- Director General / Secretary-Treasurer approximately $ 70,000 / year;
- Other cost: legal advice, auditing and insurance liability;
- 4-5 services, about $ 50,000 for service evaluation contracts, legal and accounting advice;
- Time spent by municipal administrations in the preparation of the project;
- The layout and location of office space;
- The ability to compensate members of the board of directors for attending meetings and mileage.

# 7.3.1 Scenario 3 - Intermunicipal board



Implementation period of about 12 months:

- Assessing the value of each service;
- Setting the level of service;
- Hiring a manager and creating the organizational structure.
- The agreement
  - Preparation of agreement text;
  - Establishment of the share of each municipality;
  - Legal opinion on the text of the agreement;
  - Text Validation of the agreement by each municipality;
  - Text adjustment, if necessary;
  - Adoption of the final text by resolution of all the municipal councils;
  - Deposit for acceptance of the agreement by the MAMOT
- Creation of an interim board;
- Transfer of title property, if necessary;
- Producing a projection of an operating and capital budget.

# 7.3.1 Scenario 3 - Intermunicipal board



When setting the quota, several criteria can be taken into consideration, including: the standardized property value (RFU), land area, evaluation units, the number of interventions, the number of firefighters. Examples of defining the share of the governed:

- 100% for the RFU;
- 100% population;
- RFU 50% and 50% population.

The intermunicipal board in the MRC of Temiscamingue which includes 6 municipalities, the shares have been defined as follows:

- 15% of the budget is divided equally to each municipality;
- the remaining 85% is allocated to:
  - 50% according to the RFU;
  - 50% on the number of units of assessment by excluding rough shelters.

Defined by a municipal committee of officials who submits a proposal for approval to the various municipal councils.

# 7.3.2 Scenario 3.1 - 2 boards



**Pontiac East**

- Bristol;
- Clarendon;
- Thorne;
- **Shawville**;
- Bryson;
- **Campbell's Bay**;
- L'Île-du-Grand-Calumet;
- Litchfield;
- Otter Lake;
- Portage-du-Fort.

**Pontiac West**

- Chichester;
- Fort-Coulonge;
- **L'Isle-aux-Allumettes**;
- **Mansfield-et-Pontefract**;
- Sheenboro;
- Waltham.

# 7.3.3 Scenario 3.2 - 3 boards



**Pontiac East**

- Bristol;
- Clarendon;
- Thorne;
- **Shawville**.

**Pontiac Center**

- Bryson;
- **Campbell's Bay**;
- L'Île-du-Grand-Calumet;
- Litchfield;
- Otter Lake;
- Portage-du-Fort.

**Pontiac West**

- Chichester;
- Fort-Coulonge;
- **L'Isle-aux-Allumettes**;
- **Mansfield-et-Pontefract**;
- Sheenboro;
- Waltham.

**This scenario is an alternative to the 3.1 and 3.3 scenarios, because it creates a group that includes the north-south axis of the MRC.**

# 7.3.4 Scenario 3.3 - 1 board



- Bristol;
- Clarendon;
- Thorne;
- **Shawville;**
- Bryson;
- **Campbell's Bay;**
- L'Île-du-Grand-Calumet;
- Litchfield;
- **Otter Lake;**
- Portage-du-Fort;
- Chichester;
- Fort-Coulonge;
- **L'Isle-aux-Allumettes;**
- **Mansfield-et-Pontefract;**
- Sheenboro;
- Waltham.

# 8 Recommendations

# 8 Recommendations



The following recommendations affect municipalities at different levels, it is their responsibility to put in place or not.

It is important that elected officials, administrations, directors of the fire services and all firefighters not take these recommendations as criticism but a opportunity to improve service to the population, optimization of human, material and budgetary resources and increase the health and safety of firefighters as a whole.

It is especially important to have an open mind while viewing these recommendations.

# 8.1.1 Evaluation of personnel requirements



Considering:

- The large number of firefighters (242) distributed in 10 fire services;
- The high cost of maintaining a firefighter in service.

Recommendation: Conduct a assessment of real staffing needs for each service, taking into account, among others:

- the new structures put in place;
- of greater use;
- Multi-station calls;
- the level of service offered to the population;
- the need to support one or more neighbouring municipalities;
- the availability of staff.

# 8.1.2 Availability of staff



Considering:

- That the availability of staff is most important in order to plan mobilization in emergencies;
- There is no system set up to determine the availability of staff at all times;
- It is possible to know the availability using different tools.

Recommendation: Establish a procedure to check the availability of staff at all times.

- Manually;
- Software accessible by cell phone;
  - the number of firefighters who are heading to a call;
  - automate the process of mobilization directly from the dispatch center, depending on staff availability.

# 8.1.3 Staff training



Good training and the maintenance of skills are necessary to ensure workplace health and safety for the firefighters, citizen safety during emergencies and quality service to the population.

Considering:

- The training requirements required to perform various tasks within a fire department;
- The requirements of law on occupational safety and health;
- The responsibilities devolved to municipalities as an employer;
- The dangers inherent in firefighting;
- The variety of situations that firefighters face.

# 8.1.3.1 Grandfather clause



Considering:

- An eventual possibly that this clause is abolished.
- There have been major updates in personnel training¸over the years;
- That staff without training may cause problems during emergency interventions;
- That it is impossible for this staff to register for higher training including officer, rescue, pump operator and aerial ladder operator courses because of the prerequisites required for registration;
- Many of these firefighters are the officers of tomorrow and even today.
- that ENPQ offers to recognize this experience;

Recommendation: All firefighters under 60 years serving under the grandfathering clause should undergo this process to regularize their status.

# 8.1.3.2 Firefighter 1



Considering that almost all staff completes the « Firefighter 1 » training in the time required by law,

- Management of services should continue to ensure new personnel completes training in the required time;
- Prohibit staff who do not meet the requirements of the law from acting as a firefighter at the scene of an emergency.
- Use the guidelines from the ENPQ regarding job assignment of an apprentice firefighter in case of fire.
- Preparation of directive on minimum skills necessary to intervene at various types of intervention.

# 8.1.3.2 Firefighter 2



Considering:

- Municipalities, as employers, have the obligation to train their firefighters for the work they have to perform;
- That all municipalities have large buildings such as, churches, schools, farm buildings, shops, etc .;
- That firefighters have to intervene in rescue situations;
- That firefighters who are not officers are likely to take charge early on in an intervention in case of unavailability of an officer;
- That firefighters who are not officers take responsibilitiy of a team of firefighters;
- That "Firefighter 1" training does not teach firefighters to intervene in these types of situations;
- That the "Firefighter 2" training covers some of these tasks.

Recommendation: Proceed with the establishment of a training plan based on the work to be done by considering the different sections of the » Firefighter 2 » course.

# 8.1.3.3 Pump Operator



Considering:

- It is necessary to have the pump operator certification to operate a pumper during an intervention;
- Only 33% of all firefighters have completed this training;
- that some services have less than 7 trained operators;
- The high possibility of not having a pump operator available when required.

Recommendation: Develop a training plan in order to rapidly increase the number of certified pump operators and have each department evaluate the number of operators that is necessary.

The costs associated with this training are eligible for funding by the Ministry of Public Security of Quebec (MSP).

# 8.1.3.4 Extrication



Considering:

- That it is necessary to have extrication training to operate the rescue equipment;
- There are on average 11 extrication calls on the territory each year;
- There are only 42 firefighters out of 135 trained in services that offer extrication;
- A minimum of 2 qualified firefighters is necessary to carry out rescue operations.

Recommendation: Reassess extrication needs on the territory and the deployment of equipment to optimize the service.

Set up a training plan to increase the number of firefighters trained in the operation of rescue equipment.

The costs associated with this training are eligible for funding by the Ministry of Public Security of Quebec (MSP).

# 8.1.3.5 Elevation Apparatus



Considering:

- It is mandatory to have the E.N.P.Q. training to operate an elevating device in an emergency;
- There are two services that have this type of equipment;
- That there is only 6 firefighters out of 54 who are accredited by E.N.P.Q;
- That this small percentage does not guarantee the availability of an operator when required.

Recommendation: Setting up a plan that will allow the training of a sufficient number of firefighters to be able to operate these vehicles when needed.

The costs associated with this training are eligible for funding by the Ministry of Public Security of Quebec (MSP).

# 8.1.3.6 Non-Urban Officer



Considering:

- It is mandatory for officers in municipalities of less than 5000 residents to hold a ONU certification for this position in a fire department;
- That officers have 48 months to complete the training from their nomination date;
- That about 40 current officers out of 50 have this certification.

Recommendation: Put in place a training plan to ennsure that all officers comply with these regulations and it would be relevant to create a qualified firefighter bank to fill departures.

Officer training level is calculated based on the population of the most populous municipality and not on all of the population served by the service. So the training requirements for officers remain ONU because none of the municipalities have more than 5000 inhabitants.

# 8.1.4 Recruitment



Considering:

- that 22 firefighters are over 65;
- that 5 Firefighters are between 60 and 65;
- that 23 Firefighters are between 55 and 60;
- This represents 60 firefighters out of 242, almost 25% of the total workforce;
- These firefighters are likely to leave in the next 10 years.

Recommendation: Setting up a Recruitment Strategy throughout the MRC

- Demonstrating the value of firefighters and their role and importance;
- The importance of training and its feasibility;
- The message on the training must be positive;
- Firefighter testimony;
- Women in service;
- Junior Firefighters;
- Difficulty for small municipalities to achieve the number of firefighters.

# 8.1.5 Renumeration



Considering:

- There is a big difference in the mode of remuneration of personnel;
- The hourly rate varies between $ 8 and $ 15.30 an hour;
- That the remuneration of certain services is below the minimum wage;
- that minimum time per call varies between 0 and 4 hours;
- That method of remuneration of officers varies from one service to another;
- That the staff of the different services expressed these differences;
- There is a difference between the remuneration of firefighters on different services who work on the same ifire scene;
- That there is no difference between the hourly pay of firefighters and officers;
- That we ask firefighters to be available at all times.

Recommendation: Establish a standard method of payment with the same rates for all the MRC services to eliminate gaps between the fire departments. In addition, good compensation should facilitate the recruitment and retention of staff.

# 8.1.6 External on-call



Considering:

- there is a lack of availability of staff at certain times of the week and year;
- that the services must ensure they have a minimum of staff available to respond to emergency calls;
- the Shawville / Clarendon FSS is already implementing external on-call as a solution to the non-availability of staff;
- this mode of operation is widespread among fire services.

Recommendation: Services evaluate the possibility of setting up of the external on-call to to guarantee a minimum of 4 firefighters on the initial call; number of firefighters needed an intervention inside burning building. These firefighters should be distributed as follows:

- an officer;
- a pump operator;
- 2 certified fire "Firefighter 1"

# 8.1.6 External Guard



External on-call is part of the normal path part-time fire service.

The other steps of this journey are:

- In-station on-call with part-time firefighters;
- Hiring a minimum full-time in-hall staff with part time on call;
- Full-time staff in hall with part-time staff in hall and on-call;
- Finally a full time fire brigade only.

# 8.2.1 Renewal of pumpers



Considering

- That the acceptable life time for a fire vehicle is 20 to 30 years;
- That it is difficult to find parts repair for a vehicle of more than 20 years;
- A vehicle 30 years and is considered an antique;
- that 8 vehicles over 29 years of use;
- that 5 vehicles between 25 and 29 years of use;
- that 16 vehicles should be replaced in the next 10 years;
- That it is easy to postpone replacement, When the time comes.

Recommendation: Placing a vehicle replacement schedule to maintain a fleet of reliable vehicles.

Foam and carrying capacity of 5 people.

# 8.2.2 Pumper vs pumper tanker



Considering:

- All services have territory to serve that do not have fire hydrants;
- That increasingly, multi station interventions will be the norm;
- The low number of firefighters available in the first moments of a fire;
- That the difference in water autonomy between a pumper and a pumper tanker is double;
- The connection time to a fire hydrant or setting up a portable tank is relatively long and requires a lot of staff;
- The advantage to of also being able to use a pumper tanker as a water hauler.

Recommendation: The new vehicles to be acquired should be pumper tankers and not just pumpers in order to optimize their use and increase the response capacity at the very start of an intervention.

# 8.2.3 Aerial Ladder



Two aerial ladders are available on the territory, one is 25 years old while the other is 29. It will be necessary to replace them in the near future.

Explore the possibility of acquiring aerial ladders with a minimum range of 75 feet to allow firefighters to work more effectively on higher buildings.

Considering that these vehicles are useful for the entire county, we suggest that their acquisitions and their maintenance be shared with all municipalities served by the vehicle.

In order to optimize their use, it would be preferable that these vehicles be located in Shawville and Mansfield-et-Pontefract fire halls.

# 8.3 Fire halls



Considering:

- There are halls that require improvements;
- There is a possibility of combining halls if pooling services;
- That the halls are a workplace and meeting place of staff;
- That in some halls the parking space is at a minimum;
- That the MAMOT subsidizes renovation projects or the construction of fire halls;
- That pooling of services is considered in grant applications;
- That the program could end at any time.

Recommendation: The opportunity to receive a grant for work in the halls is to be considered to perform an update of these buildings and reduce the burden on the citizens of the municipalities.

The MAMOT subsidized by the "PIQM volet 5, sub-section 5.1. "Between 60% and 85% of the cost of renovations or construction work for fire halls. According to the net charge of $ 100 RFU of a municipality

# 8.4.1 Intervention mobilization



Considering:

- Each service has its own mobilization system;
- The coverage of these systems fails to notify the fire department on the entire territory;
- That firefighters have to travel for work within the MRC.

Recommendation: Establish a Common Alerting System to allow the fire service personnel to be reached on the entire municipalized territory of the MRC.

This system could be set up by the MRC and the acquisition and maintenance costs paid by the municipalities.

There are many choices that are available, including:

- The installation of a communication network that transmits on the same frequency
- Using the MRC intervention frequency;
- One of the solutions that use cell phones and their networks.

# 8.4.3 Standardization of operations



Considering:

- There are some services who respond with similar operating procedures while others do not have any specific procedures;
- That services do not regularly practice together;
- It is important during an emergency where multiple services are involved, to have a standardization of intervention procedures;
- That the establishment of a command post which coordinates all firefighters is an obligation;
- that structured support of personnel is an obligation to ensure their health and safety throughout the intervention.

Recommendation: The MRC fire committee should set up a working group that will oversee the standardization of procedures on interventions for all services of the territory and promote training among services that are likely to occur together.

# 8.4.4 extrication



Considering:

- The costs of training staff;
- The cost to purchase, renew and maintain equipment;
- That there are 5 services offering extrication in the territory;
- That all 5 services are located along Highway 148, there is less than 20 km between services;
- That routes 301, 303 and 366 do not have the same service as Highway 148;
- That there is an average of 11 extrication calls in the territory each year.

Recommendation: Make an assessment of actual extrication service needs over the whole territory in order to balance the service and optimize available equipment.

# 8.4.5 SUMI



Considering (1/2) :

- Pontiac MRC consists largely of a TNO of almost 9 000 km$^2$ operated by the forestry and tourism industry and also used by the MRC population;
- Several municipalities have territory used for recreation purposes (cottages, camps for fishing and hunting);
- The MRC promotes its vast land provincially and nationally. The appeal of its tourist attractions are wide open spaces;
- The MRC and municipalities invite the public to use the great outdoors;
- That the tourism generates significant revenues for the territory;

# 8.4.5 SUMI



Considering (2/2) :

- That there is no response protocol in case of rescue in isolated areas currently in place;
- That there is no equipment available to make these interventions;
- That there is no trained staff for this type of intervention;
- That the ombudsman recommends implementing intervention protocols on the territory of Québec;
- The Ministère de la sécurité of Quebec subsidizes creating these response teams;
- It is the interest of the entire population that uses these open spaces to have assistance in case of need;
- That the MRC would receive bad press if invited tourists did not receive rescue services in times of need.

# 8.4.5 SUMI



The MRC is currently working on the establishment of a protocol for emergency services in isolated areas (SUMI) on its territory.

Recommendation: Establish a workgroup of managers and staff to assesses the coverage needs of the whole couty based on what is done in other comparable MRC.

The cost of equipment necessary for a service kit is about $ 50,000. To this amount, add the staff training costs and, if necessary, the cost to acquire a vehicle to tow the trailer.

Currently, the MSP subsidizes the implementation of a SUMI protocol for the purchase of equipment and promoting preventive measures to the population. The training of staff is also eligible for subsidy.

# 8.4.6.1 The SCBA equipment



Considering (1/2) :

- That SCBA are of paramount importance in the health and safety of firefighters;
- Such equipment must meet high standards that are ever changing;
- That it is important to have only one model of SCBA to allow the firefighters to have thorough knowledge of the aparatus;
- That the life of a SCBA is limited depending on its maintenance and parts availability;
- that some SCBAs have over 20 years of wear;
- That the cylinders of the current devices have a capacity of 2216 $lb/p^2$; capacity that is just enough to ensure an autonomy of 30 minutes required by current standards;
- That there are over 4 different brands of SCBA used by the various fire departments of the MRC;

# 8.4.6.1 The SCBA equipment



Considering (2/2) :

- That the staff of some services have to use two brands of SCBA;
- That, for the same brand of SCBA, it is possible to see several different models;
- Each make and model have a specific operating procedure;
- That it is impossible for a firefighter to master the operation of several different models of SCBA;
- that several devices are due to be replaced in all services;
- The services are more often intervening together at the scene of a fire.

# 8.4.6.1 The SCBA equipment



Recommendation: Fire departments should tend toward the purchase of the same brand and same model of SCBA to ensure the health and safety of their staff.

It is best to proceed with replacement of all devices at the same time to spread the costs over their normal lifespan of 15 years.

This solution can benefit, when buying, from a volume discount from suppliers and facilitates maintenance of such equipment. Estimated cost of $ 1.4 million

It would be possible to conduct an annual turnover of devices to balance their use by moving the most used units to the fire halls that use them less frequently.

It is recommended to equip each first response vehicle with a minimum number of SCBA:

- 4 for pumpers and pumper tankers;
- 2 for tankers;
- 2 or 4 for aerial ladders.

# 8.4.6.2 Hoses



Considering

- That Campbell's Bay-Litchfield and Waltham fire services use 2.5 inch fittings with CSA threads (Ontario standard thread);
- That all other services use QST threads for these connections;
- The services have to increasingly work together on emergency calls;
- Two services on the territory use different connectors for their 2.5 inch pipes;
- It is necessary to use adapters to make the connection on these pipes for other services;
- This obligation is likely to cause difficulties and delays in emergency situations;
- It is important to have a standardization of equipment.

Recommendation: Both services should carry out the modification of their connections to standardize with other services of the MRC. This standardization could be achieved gradually.

# 8.4.6.3 Thermal Cameras



Considering

- That thermal cameras facilitate fire fighting;
- They allow to quickly locate a victim in a smoky building;
- They allow to quickly locate a distressed firefighter;
- They allow to quickly locate the seat of the fire;
- They allow to locate the path of the fire in a wall;
- They can be used in situations other than fire; rescue, search, etc .;
- There are already 6 services who have thermal cameras.

Recommendation: It would be a important that each main fire station have at least two thermal imaging cameras. The organization of interventions should be designed in such a way to have at least one camera available from the very first moments of a fire and quickly route a second camera for the quick response team.

Estimated cost of $ 9,000 per camera.

# 8.5.1 Intermunicipal agreements



Considering

- Several municipalities already have mutual aid agreements with neighboring municipalities;
- Several services have automatic intervention in case of fire agreements with their neighbors;
- That in some areas, it was decided to mobilize the nearest fire station regardless of municipal boundaries;
- That the fire response time is an important factor during the emergency response;
- The need to make a good pre-response planning;
- That insurance premiums are based on the distance between the building and a fire station and a fire hydrant network.

Recommendation: The entire MRC response planning should be based on the nearest fire station regardless of municipal boundaries.

# 8.5.3 TNO agreements



Considering

- Four fire departments are direct neighbors of the TNO;
- These services are called to intervene on this territory from time to time;
- There is no written agreement to cover this territory;
- That those services who respond do so at their own risk;
- That the MRC Pontiac is responsible for the management of the territory;
- That the presence of agreements helps establish clear response procedures.

Recommendation: The MRC Pontiac signs agreements for TNO fire coverage with municipal fire services that are likely to intervene.

These agreements must stipulate the level of service expected and the responsibilities of each party to the agreement.

The agreement should also provide for who will assume the costs for maintaining this fire coverage, the area served, and the costs related to mechanical breakdowns of vehicles caused by road conditions if the services intervene in the TNO.

# 8.6 The type of service



Considering (1/3)

- There is less than 14 000 residents in the MRC Pontiac;
- The territory to be served is mostly located along provincial highways 148, 301 and 303.
- That the length of the territory from east to west is roughly 100 km;
- That the length of the territory from north to south is roughly 70 km;
- That there are 4 main service poles on hwy 148 with about 20 km between them and relying on a sufficient population that can support a full fire department staff:
  - Shawville-Clarendon;
  - Campbell's Bay-Litchfield;
  - Mansfield-et-Pontefract and Fort-Coulonge;
  - Pontiac Ouest.

# 8.6 The type of service



Considering (2/3)

- There is a pole, Otter Lake, to the north on Route 301;
- That there is are 10 services and 15 fire stations on the assessed territory;
- The distance between the stations varies between 4 km and 25 km; the average is less than 20 km;
- That the demographic profile of the MRC is aging;
- That the population of the MRC is decreasing;
- It is extremely difficult for municipalities of less than 1000 in population to maintain a staff sufficient enough to support a fire department;
- That the availability of staff is increasingly low;
- That the standardization of policies, procedures and protocols of intervention is necessary;

# 8.6 The type of service



Considering (3/3)

- That the standardization of equipment is needed to provide a quality service to the entire population and to improve the health and safety of personnel;
- that optimizing human, material and budgetary resources is an important issue;
- that a recruitment strategy on the whole territory is required;
- How difficult it is for part-time directors to dedicate the time necessary to service management;
- There are already 3 full-time directors on the territory;
- The need to develop a long term response plan for emergency calls throughout the MRC;
- It is desirable for the population that the quality of service offered be the same for everyone;
- That there be a fair distribution of costs between municipalities relating to fire protection;
- That elected officials showed interest in the establishment an intermunicipal board.

# 8.6 The type of service



For these reasons, we believe that the establishment of a single fire service as governed by an intermunicipal board for the studied area is the best long-term choice, because this entrusts one signle entity the responsibility of fire service offering and planning response emergency coverage for the entire county.

Furthermore, this entity could take over all fire safety services offered by the MRC, such as coordination and management of fire prevention as well as the personnel assigned to these tasks.

The municipal administrations would also no longer be tasked with manageing fire service, as this administration would be under the responsibility of another independent body. Municipal administrations would only serve in a supporting role.

# 8.6 The type of service



**But considering:**

- Several elected officials are not comfortable with the establishment of a single authority;
- That the fire services do not seem ready for integration of this kind;
- Several stakeholders seem to see this as challenge that would be impossible to achieve;
- There is a risk that staff may have difficulty accepting the change;
- There is still an appearance of a turf war between some municipalities;
- The number of members (16) that the board of administration of a single authority would need makes it's implementation more difficult;
- That the majority of elected officials are willing to partner with their immediate neighbors;
- That the integration of services is necessary to maintain a high quality of service to the population.

**We recommend that municipalities chose either scenario 2 « Integration into 4 sectors" or scenario 3.1 "Two intermunicipal boards." We consider these two scenarios as acceptable for all and would be a significant improvement. Moreover, these scenarios have already been suggested by current members of MRC fire services.**

# 8.6 The type of service



The main advantage of scenario 2 is an integration of services according to their geographical position which is consistent with the 4 main fire service poles of the MRC which are well distributed along hwy 148 and the junction of highways 148 and 301 and 303.

However, these sectors are still under the direct responsibility of municipal councils and administrators that have several other issues to manage and fire coverage is not always the highest priority among these issues.

# 8.6 The type of service



3.1 The creation of 2 intermunicipal boards scenario enables the creation of two distinct entities that do not report directly to municipal councils, but to a board of administrators which, during their meetings, only have fire service as a point of discussion.

Intermunicipal boards favor the establishment of a more equal service.

It requires municipalities to follow their commitments to the agreement, as they have an obligation to contribute to the financing of the service according to a share defined in the agreement.

# 9 Conclusion

# 9.1 Findings and in-house suggestions



The findings of the 2016 document from Mr. Jacques Piché, Public and Civil safety Coordinator, are still relevant today.

The proposition of chiefs Kevin Kluke and Lee Laframboise demonstrated the ability of the fire services to identify needs and propose a structured organisation capable of being able to meet the challenges and requirements facing the fire service of the MRC.

Municipal elected officials have demonstrated the importance they have for the safety of their citizens.

The majority of municipal administrators of the MRC are open to change in fire services and are ready to get involved to implement long-term solutions, but not at any cost.

# 9.2 What is unavoidable



Whatever structure is put in place, it is necessary to ensure a quality service and to meet the requirements of the fire safety cover plan, and in the short term:

- To evaluate personnel needs;
- Establish a system to assess the real-time availability of personnel;
- Ensure that all staff has the training required for the position they hold;
- Ensure there is a sufficient number of firefighters trained for specialized tasks;
- Establish a common recruitment strategy at the MRC;
- To set up a similar compensation structure for all services; (after)

# 9.2 What is unavoidable



- Assess needs and the possibility of establishing external on-call times;
- Assess vehicle requirements;
- Establish a vehicle replacement schedule;
- Proceeding with short-term replacement of several vehicles;
- Proceeding with the update of some fire stations;
- To ensure that there is standardization of operating procedures across the entire MRC during emergency calls;
- Establish an intervention protocol for SUMI;
- Conduct a standardization of SCBA;
- Conduct a standardization of fire hose threads;
- Ensure that all agreements are kept up to date.

# 9.3 Minimal structure



| Fire Halls | Pumper Tanker | Tanker | Equipement truck | Aerial Ladder | Total | Personnel |
|---|---|---|---|---|---|---|
| **Bristol** | 1 | 1 | 1 | 0 | **3** | **15 to 20** |
| **Campbell's Bay** | 2 | 2 | 1 | 0 | **5** | **25 to 30** |
| **L'Isle-aux-Allumettes** | 2 | 2 | 1 | 0 | **5** | **25 to 30** |
| **Mansfield-et-Pontefract** | 3 | 1 | 1 | 1 | **6** | **35 to 40** |
| **Otter Lake** | 2 | 1 | 1 | 0 | **4** | **20 to 25** |
| **Shawville** | 3 | 1 | 1 | 1 | **6** | **35 to 40** |
| **Total** | **13** | **8** | **6** | **2** | **29** | **155 to 185** |

# 9.4 First Steps



The first step is to agree on the scenario which is capable of satisfying all municipalities while allowing a secure, long-term, quality service for the entire population.

Thereafter, it will be possible to identify the structures to set up and conduct the nomination of various officers.

They will conduct the evaluation of needs, taking into account the achievement of standardization across the territory.

# 9.4 First Steps



It is difficult to identify the costs of each scenario, since these are directly related to factors that vary significantly from one service to another and decisions which will be taken by elected officials and directions of services, including:

- staff remuneration;
- the introduction or not of on-call;
- the number of firefighters required in each station;
- the number of hours selected annual practice;
- the number of firefighters and stations mobilized during interventions.

In the study of each or a group of these factors, it will be possible, using different scenarios, to determine the costs and their impact on the budgets of the fire service.

# 9.5 Scenarios



Status quo:

- Less expensive in the short term but not long-term
- Recruitment problems;
- The lack of availability of firefighters and managers.

Intermunicipal boards:

- They are the most expensive (set up of $50,000 to $100,000);
- The costs to put in place;
- The management of new organizations;
- Solutions that will stabilize long-term costs;
- The share per municipality will allocate these costs more fairly between them.

Sectors:

- A compromise in the medium and long term;
- Management fees are already included in the municipal budget
- The integration of services does not result in increased management costs.

# 9.6 Investments (1/3)



**The budgetary costs for the replacement of certain equipment necessary for the proper functioning of the fire service and must be made in the coming years are:**

| Type of equipment | Timeline | Funding period | Total amount |
|---|---|---|---|
| **Self contained breathing apparatus (SCBA).** | Within 3 to 5 years | 15 years | $ 1.4 million |
| **Vehicles** | The next 10 years | 20 to 25 years | $ 6,250,000 |
| **Thermal camera** | 3 to 5 years | 5 years | $ 162,000 |

# 9.6 Investments (2/3)



These investments have not been quantified, but require decisions on case by case basis, such as:

- a system of monitoring the availability of personnel;
- the establishment of a firefighter alert system that covers all of the MRC;
- optimization of the telecommunications system to ensure better coverage;
- standardization of threading of hoses and hydrants;
- the updating of the fire halls;
- updating of water rescue equipment.

# 9.6 Investements (3/3)



The emergency rescue protocol in isolated environments (SUMI)

- Cost $ 50 000 per service point for equipment;
- Personnel training costs
- The possibility of needing a truck for transporting personnel and equipment.
- The number of service points to be identified.
- The MSP largely finances its implementation.

# 9.8 Budgets and insurance (1/3)



The fire department budgets:

- Are currently within the Quebec average;
- The standardization;
- The renewal and updating of certain equipment;
- Meeting the needs of the population.

Equals increased budgets.

The establishment of new structures could help stabilize costs over a period of 3 to 5 years.

# 9.8 Budgets and insurance (2/3)



It has been shown in several regions of Quebec, that the integration of fire services , whether by intermunicipal agreement, for the establishment of intermunicipal boards or municipal amalgamation:

- Are beneficial for the population;
- Possible to guarantee the same level of service across the territory;
- Equitable sharing of costs;
- Improved service to the population;
- Allow the optimization of human, material and budgetary resources.

# 9 Budgets and Insurance (3/3)



**The establishment of these integrations, even if it does not allow budget savings, is likely to bring a reduction in insurance premiums for some citizens.**

- **Property within 8 km from a fire station;**
- **Savings can easily vary between 25% and 50% of their current premium.**

| Scenarios | Less than 8km | Total properties | % Of properties | Differential Vs Scenario 1 |
|---|---|---|---|---|
| **Scenario 1 - Status quo** | 7572 | 11413 | 66.35% | 0 |
| **Scenario 2 - 4 sectors** | 7921 | 11413 | 69.40% | 349 |
| **Scenario 3.1 - 2 boards** | 8144 | 11413 | 71.36% | **572** |
| **Scenario 3.2 - 3 boards** | 7961 | 11413 | 69.75% | 389 |
| **Scenario 3.3 – 1 board** | 8156 | 11413 | 71.46% | **584** |

# 9.9 Evolution, standardisation and vision (1/2)



The choice of the type of service to be up can evolve over time.

Initially, the implementation of a variation of the proposal given by Kevin Kluke and Lee Laframboise could be put in place until there is consolidation and standardization of operations in the 4 sectors.

The small size of these services combined with the presence of a full-time director would allow for fast improvement.

Subsequently, the integration into 2 sectors or 2 boards would be the normal progression to ultimately acheive optimal organization that is the presence a single service on the whole territory of the MRC.

# 9.9 Evolution, standardisation and vision (2/2)



It is important that all elected officials, of director generals, directors of fire services and firefighters have the same long-term vision to put in place management tools within the fire departments that are similar and that will facilitate the consolidation of work in due course.

Municipal leaders must ensure that Fire Chiefs work symbiotically and not in isolation, otherwise evolution will not be possible and within a few years we will be back to square one.

It is necessary that all services put in place the same working conditions for their staff, standardize their operations and equipment, have a common staff recruitment and retention strategy, create unique training groups and prepare and offer training and practice sessions with other fire services.

# 9.11 Challenges



The biggest challenge for the coming years is definitely the recruitment, retention and human resource management.

Firefighting is becoming less and less the main task of firefighters. Water and isolated environment rescues, first responders, intervention during floods, vehicle accidents, interventions in the presence of hazardous materials are the new workload of firefighters.

They are often the first organizations on the scene of a disaster with the knowledge of the territory combined with a quick response capability.

These emergencies require part-time firefighters to acquire new skills and maintain them, all the while occupying other employment and raising a family.

It is important to establish attractive working conditions to provide quality equipment necessary for the fulfillment of their mandates and recognize and value their work.

# 9.11 Decision



Now, the final decision must take into consideration:

- The level of service desired by the citizens;
- The legal obligations that municipalities are subject to as manager and employer of choice;
- The commitments to the fire safety cover plan.

Municipal elected officials have to make the decision on the level of service to be put in place and to choose which model of organization is able to meet these obligations, while respecting the ability to pay of all taxpayers.

Elected officials will have to take into account the disparity between the costs of fire protection in different municipalities and try to strike a balance between them; this, by promoting a vision at the regional level rather than the local level

# 9.11 Decision



It is important to keep an open mind, be ready to try things, deal with problems and demonstrate patience.

The final decision should not be made only by considering the costs, but rather on the quality of service to offer to residents and visitors to ensure their safety from several potential hazards.

It is important to not forget that the protection of citizens and their property in emergency or disaster situation is one of the main reasons for the establishement of municipalities.

# Thank you for your attention



Questions

Comments