



## AGENDA

**REGULAR MEETING OF THE MUNICIPAL EMERGENCY MANAGEMENT COMMITTEE OF THE TOWN OF TABER, ALBERTA, TO BE HELD IN THE FIRE HALL BUILDING ON MONDAY, JULY 13, 2015 AT 4:30 PM.**

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1. **CALL TO ORDER**
2. **ADOPTION OF THE AGENDA**
3. **DELEGATIONS**
4. **ADOPTION OF THE MINUTES**
- 4.A. **MUNICIPAL EMERGENCY MANAGEMENT MEETING MINUTES:  
JUNE 24, 2015**
5. **BUSINESS ARISING FROM THE MINUTES**
6. **ACTION ITEMS**
- 6.A. **FIRE UNDERWRITER'S SURVEY (FUS): CLARIFICATION OF RATINGS**
7. **MEDIA INQUIRIES**
8. **CLOSED SESSION**
- 8.A. **FOIPP ACT, SECTION 24: ADVICE FROM OFFICIALS**
- 8.B. **FOIPP ACT, SECTION 24: ADVICE FROM OFFICIALS**
- 8.C. **FOIPP ACT, SECTION 24: ADVICE FROM OFFICIALS**
9. **OPEN SESSION**
10. **CLOSE OF MEETING**



## Municipal Emergency Management Committee Request for Decision

**Meeting Date:** August 4, 2015

**Subject:** Municipal Emergency Management Meeting Minutes:  
June 24, 2015

|  |  |
|--|--|
| <b>Recommendation:</b>                             | That the Municipal Emergency Management Committee adopts the minutes of the Regular meeting held on June 24, 2015, as presented. |
| <b>Background:</b>                                 | N/A  |
| <b>Legislation / Authority:</b>                    | MGA, Section 208   |
| <b>Strategic Plan Alignment:</b>                   | N/A  |
| <b>Financial Implication:</b>                      | N/A  |
| <b>Service Level / Staff Resource Implication:</b> | N/A  |
| <b>Justification:</b>                              | Approval of minutes is in accordance with the Municipal Government Act, Section 208.   |
| <b>Alternative:</b>                                | That the Municipal Emergency Management Committee adopts the minutes of the Meeting held on June 24, 2015, as amended.           |



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|                       |         |
|-----------------------|---------|
| <b>Attachment(s):</b> | Minutes |
|-----------------------|---------|

| <b>APPROVALS:</b>                                       |               |
|---|---------------|
| <b>Originated By:</b>                                   | Kerry Van Ham |
| <b>Chief Administrative Officer (CAO) or Designate:</b> |               |

MINUTES OF THE REGULAR MEETING OF THE MUNICIPAL EMERGENCY MANAGEMENT COMMITTEE OF THE TOWN OF TABER, IN THE PROVINCE OF ALBERTA, HELD IN THE FIRE HALL BUILDING, ON WEDNESDAY, JUNE 24, 2015, AT 4:00 PM.

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**Mayor**

De Vlieger, Henk

**Members**

Ross-Giroux, Laura  
Sparks, Randy

**Absent**

Brewin, Jack

**Chief Administrative Officer**

Birch, Greg

**Staff**

Debienne, Steven  
Munshaw, Steve  
Van Ham, Kerry

**CALL TO ORDER**

Chair Sparks called the Municipal Emergency Management Committee Meeting to Order at 4:16 PM.

**ADOPTION OF THE AGENDA**

Chair Sparks inquired if there were any additions or deletions to the Agenda and advised that there were none.

RES.37/2015 MOVED by Mayor De Vlieger that the Municipal Emergency Management Committee adopts the Agenda as presented.

CARRIED UNANIMOUSLY

## **DELEGATIONS**

None.

## **ADOPTION OF THE MINUTES**

### **A) Municipal Emergency Management Meeting Minutes: June 1, 2015**

RES.38/2015MOVED by Mayor De Vlieger that the Municipal Emergency Management Committee adopts the minutes of the Regular Meeting held on June 1, 2015, as presented.

CARRIED UNANIMOUSLY

## **BUSINESS ARISING FROM THE MINUTES**

### **A) Defining Levels of Service for Lamb Weston and the Village of Barnwell**

S. Munshaw stated that at the Committee's June 1, 2015 meeting, a motion was made requesting clarification on the levels of service that were required for Lamb Weston and the Village of Barnwell.

Chief Munshaw also stated that he has been in contact with both of these entities and appointments have been set to discuss their service requirements and parameters.

RES.39/2015MOVED by Councillor Ross-Giroux that the Municipal Emergency Management Committee accepts the verbal update report of Level of Services for Lamb Weston and the Village of Barnwell for information purposes.

CARRIED UNANIMOUSLY

## **ACTION ITEMS**

### **A) Budget Review of Level of Service**

Chief Munshaw stated that at the Committee's June 1, 2015 meeting, the Committee was asked for their input on the potential increase to the levels of service associated with Hazmat, Confined Space Rescue, and Medical First Responder. The Committee requested Administration bring back the costs associated with each of these items for review at the June 24, 2015 meeting.

Chief Munshaw clarified that these areas have been included in the current and future operational budgets for the Emergency Services Department. Chief Munshaw also stated that the Department requests to maintain slow and consistent progression and advance slowly while keeping within the operational budget. If the Committee decides that these items all needed to be completed next year, there could be a requirement to change the budget for next year for the inclusion of all items within one budget year.

RES.40/2015 MOVED by Mayor De Vlieger that the Municipal Emergency Management Committee accepts the verbal update report for the level of service moving forward for the Town of Taber.

CARRIED UNANIMOUSLY

### **B) Fire Chief's Report: For the Month of May**

Chief Munshaw provided an overview of Taber Emergency Services statistical and departmental activities.

RES.41/2015 MOVED by Councillor Ross-Giroux that the Municipal Emergency Management Committee accepts the Fire Chief's update report for information purposes.

CARRIED UNANIMOUSLY

## **MEDIA INQUIRIES**

None.

**CLOSED SESSION**

RES.42/2015MOVED by Mayor De Vlieger that the Municipal Emergency Management Committee moves to Closed Session.

CARRIED UNANIMOUSLY AT 4:45 PM

**OPEN SESSION**

RES.43/2015MOVED by Councillor Ross-Giroux that the Municipal Emergency Management Committee reconvenes into Open Session.

CARRIED UNANIMOUSLY AT 4:46 PM

RES.44/2015MOVED by Mayor De Vlieger that the Municipal Emergency Management Committee amend the Agenda to include the addition of an item to Closed Session subject to "Advice from officials" (FOIPP Act, Section 24).

CARRIED UNANIMOUSLY

**CLOSED SESSION**

RES.45/2015MOVED by Councillor Ross-Giroux that the Municipal Emergency Management Committee moves to Closed Session to discuss a matter subject to "Advice from officials" (FOIPP Act, Section 24).

CARRIED UNANIMOUSLY AT 4:46 PM

**OPEN SESSION**

RES.46/2015MOVED by Mayor De Vlieger that the Municipal Emergency Management Committee reconvenes into Open Session.

CARRIED UNANIMOUSLY AT 5:52 PM

**CLOSE OF MEETING**

RES.47/2015 MOVED by Councillor Ross-Giroux that this Regular Meeting of the Municipal Emergency Management Committee is hereby Closed.

CARRIED UNANIMOUSLY AT 5:52 PM

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CHAIR

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CHIEF ADMINISTRATIVE OFFICER

DRAFT





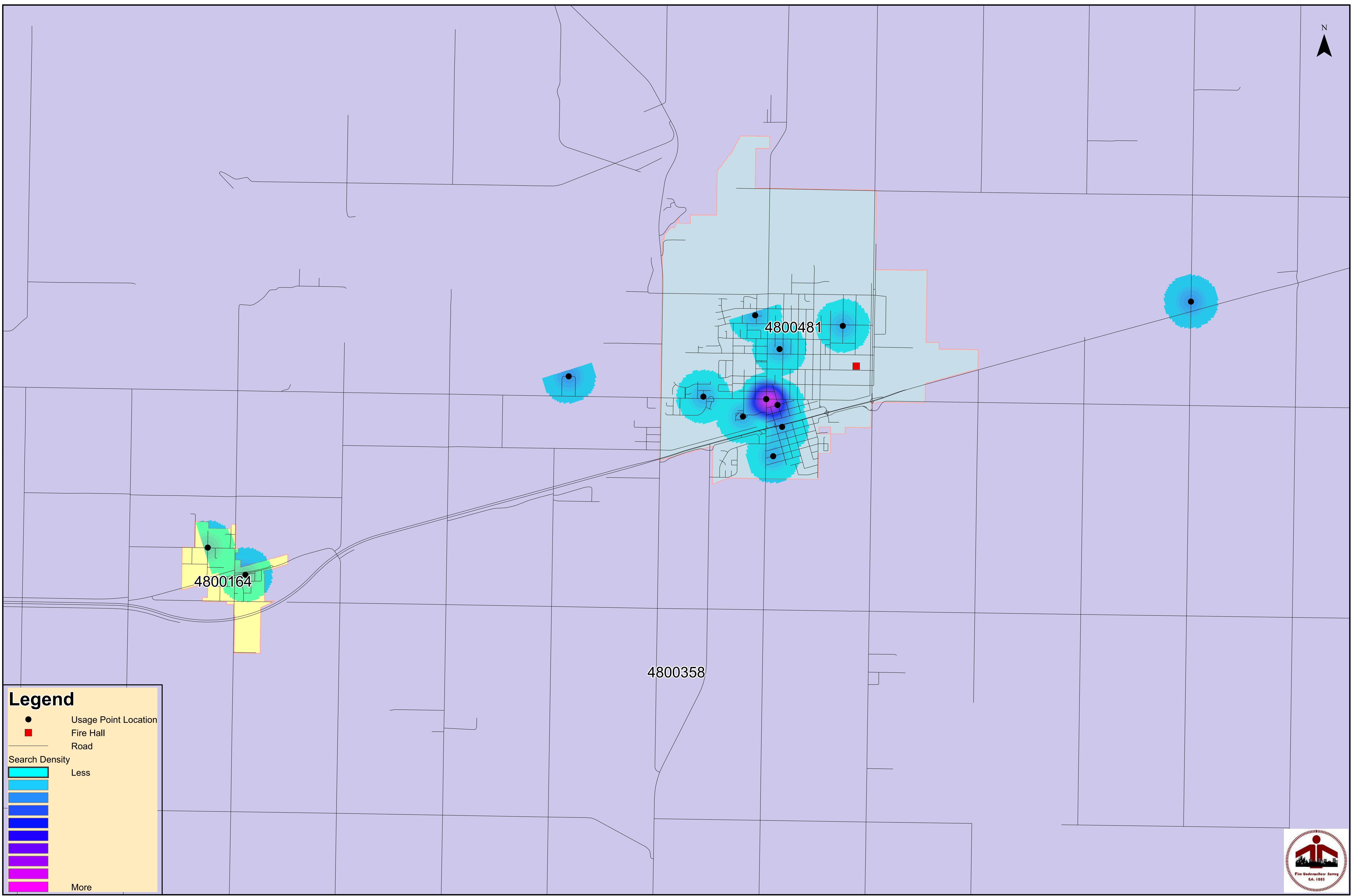
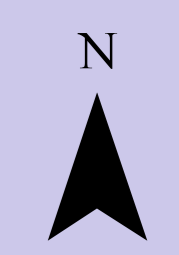
## Municipal Emergency Management Committee Request for Decision

|   |  |
|---|--|
| <b>Meeting Date:</b> July 13, 2015  |  |
| <b>Subject:</b> Fire Underwriter's Survey (FUS): Clarification of Ratings |  |
| <b>Recommendation:</b>  | That the Committee accept the information on the Fire Underwriters Survey as information.  |
| <b>Background:</b>  | To clarify question on Fire Underwriters and how it works with insurance company's what is and is not mandated. The Fire Underwriters have set up a power point presentation to go over these questions. A Skype presentation from Robert McGuinness of the Fire Underwriters Survey (see information attached) has been arranged so that the Committee members can ask questions and fully understand this issue. |
| <b>Legislation / Authority:</b>   | Obtaining information to make better decisions is a Natural Person Power (MGA s. 6)  |
| <b>Strategic Plan Alignment:</b>  | N/A  |
| <b>Financial Implication:</b>   | N/A  |
| <b>Service Level / Staff Resource Implication:</b>                        | N/A  |
| <b>Justification:</b>   | This will help make more informed decisions in regards to operational needs.   |
| <b>Alternative(s):</b>  | N/A  |



|                       |   |
|-----------------------|---|
| <b>Attachment(s):</b> | None.<br>Canadian Fire Insurance Grading Index Usage April 2015 – Taber Area<br>Canadian Fire Insurance Grading Index Usage April 2015<br>FUS Technical Bulletin - Insurance Grading Recognition<br>FUS power point |
|-----------------------|---|

| <b>APPROVALS:</b>                                       |               |
|---|---------------|
| <b>Originated By:</b>                                   | Steve Munshaw |
| <b>Chief Administrative Officer (CAO) or Designate:</b> |               |



**Legend**

- Usage Point Location
- Fire Hall
- Road

Search Density

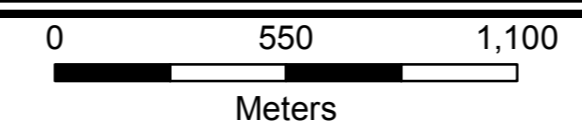
|                  |      |
|------------------|------|
| Lightest Blue    | Less |
| Light Blue       |      |
| Medium Blue      |      |
| Dark Blue        |      |
| Very Dark Blue   |      |
| Purple           |      |
| Dark Purple      |      |
| Magenta          |      |
| Lightest Magenta | More |

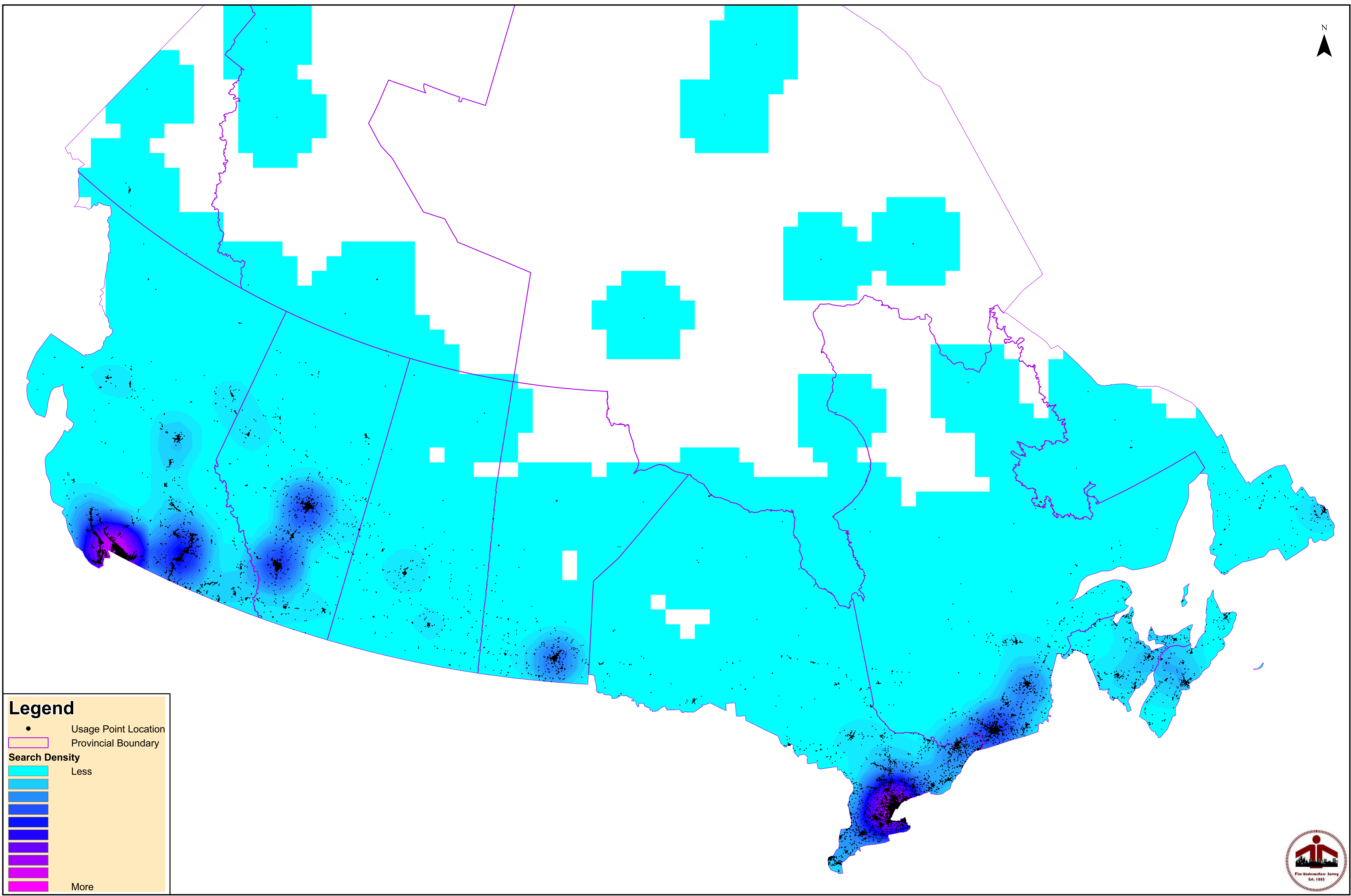
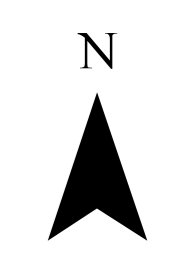


Canadian Fire Insurance Grading Index Usage April 2015 – Taber Area

Town of Taber

Scale = 1:18,000





**Legend**

- Usage Point Location
- ▭ Provincial Boundary

**Search Density**

- Less
- More



# TECHNICAL BULLETIN

## FIRE UNDERWRITERS SURVEY™

*A Service to Insurers and Municipalities*

### INSURANCE GRADING RECOGNITION OF USED OR REBUILT FIRE APPARATUS

The performance ability and overall acceptability of older apparatus has been debated between municipal administrations, the public fire service and many others for years. Fire Underwriters Survey (FUS) has reviewed experiences across Canada and in other countries and has developed a standard for acceptance of apparatus as the apparatus becomes less reliable with age and use.

The public fire service is unique compared to other emergency services in that fire apparatus vehicles are not continuously in use. However, when in use, the apparatus is subject to considerable mechanical stress due to the nature of its function. This stress does not normally manifest itself on the exterior of the equipment. It is effectively masked in most departments by a higher standard of aesthetic care and maintenance. Lack of replacement parts further complicates long term use of apparatus. Truck and pump manufacturers maintain a parts inventory for each model year for a finite time. After that period, obtaining necessary parts may be difficult. This parts shortage is particularly acute with fire apparatus due to the narrow market for these devices.

Fire Underwriters Survey lengthy experience in evaluating fire apparatus indicates that apparatus should be designed to an acceptable standard. The standard that is accepted throughout Canada by Fire Underwriters Survey is the Underwriters' Laboratories of Canada (ULC) Standard S515 (most updated version) titled, "Automobile Fire Fighting Apparatus," which was adopted as a National Standard of Canada in September 2004. Alternatively, NFPA 1901, the Standard for Automotive Fire Apparatus (most updated version) is also accepted by Fire Underwriters Survey with respect to apparatus design. Fire apparatus should be built by recognized manufacturers and tested by a suitably accredited third party.

Fire apparatus should respond to first alarms for the first fifteen years of service. During this period it has reasonably been shown that apparatus effectively responds and performs as designed without failure at least 95% of the time. For the next five years, it should be held in reserve status for use at major fires or used as a temporary replacement for out-of-service first line apparatus. Apparatus should be retired from service at twenty years of age. Present practice indicates the recommended service periods and protocols are usually followed by the first purchaser. However, at the end of that period, the apparatus is either traded in on new apparatus or sold to another fire department. At this juncture, the unit may have one or more faults which preclude effective use for emergency service. These deficiencies include:

- a. Inadequate braking system
- b. Slow pick-up and acceleration



- c. Structurally weakened chassis due to constant load bearing and/or overloading
- d. Pump wear

FUS has modified its application of the age requirement for used or rebuilt apparatus. Due to municipal budget constraints within small communities we have continued to recognize apparatus over twenty years of age, provided the truck successfully meets the recommended annual tests and has been deemed to be in excellent mechanical condition. The specified service tests are outlined below under the heading “Recommended Service Tests for Used or Modified Fire Apparatus”. Testing and apparatus maintenance should only be completed by a technician who is certified to an appropriate level in accordance with NFPA 1071, *Standard for Emergency Vehicle Technician Professional Qualifications*.

Insurance grading recognition may be extended for a limited period of time if we receive documentation verifying that the apparatus has successfully passed the specified tests. If the apparatus does not pass the required tests or experiences long periods of “downtime” we may request the municipal authority to replace the equipment with new or newer apparatus. If replacement does not occur, fire insurance grading recognition may be revoked for the specific apparatus which may adversely affect the fire insurance grades of the community. This can also affect the rates of insurance for property owners throughout the community.

**Table 1 Service Schedule for Fire Apparatus For Fire Insurance Grading Purposes**

| Apparatus Age              | Major Cities <sup>3</sup> | Medium Sized Cities <sup>4</sup>                          | Small Communities <sup>5</sup> and Rural Centres                            |
|----------------------------|---------------------------|---|---|
| 0 – 15 Years               | First Line Duty           | First Line Duty   | First Line Duty   |
| 16 – 20 Years              | Reserve                   | 2 <sup>nd</sup> Line Duty                                 | First Line Duty   |
| 20 – 25 Years <sup>1</sup> | No Credit in Grading      | No Credit in Grading<br><i>or</i><br>Reserve <sup>2</sup> | No Credit in Grading<br><i>or</i><br>2 <sup>nd</sup> Line Duty <sup>2</sup> |
| 26 – 29 Years <sup>1</sup> | No Credit in Grading      | No Credit in Grading<br><i>or</i><br>Reserve <sup>2</sup> | No Credit in Grading<br><i>or</i><br>Reserve <sup>2</sup>                   |
| 30 Years +                 | No Credit in Grading      | No Credit in Grading                                      | No Credit in Grading  |

<sup>1</sup> All listed fire apparatus 20 years of age and older are required to be service tested by recognized testing agency on an annual basis to be eligible for grading recognition. (NFPA 1071)

<sup>2</sup> Exceptions to age status may be considered in a small to medium sized communities and rural centres conditionally, when apparatus condition is acceptable and apparatus successfully passes required testing.

<sup>3</sup> Major Cities are defined as an incorporated or unincorporated community that has:

- a populated area (or multiple areas) with a density of at least 400 people per square kilometre; AND
- a total population of 100,000 or greater.

<sup>4</sup> Medium Communities are defined as an incorporated or unincorporated community that has:

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

<sup>5</sup> Small Communities are defined as an incorporated or unincorporated community that has:

- no populated areas with densities that exceed 200 people per square kilometre; AND
- does not have a total population in excess of 1,000.



Table 2 Frequency of Listed Fire Apparatus Acceptance and Service Tests

|  | Frequency of Test   |                     |                     |                                 |                           |  |
|--|---|---------------------|---------------------|---------------------------------|---------------------------|--|
|  | @ Time of Purchase New or Used                            | Annual Basis        | @ 15 Years          | @ 20 Years<br><i>See Note 4</i> | 20 to 25 Years (annually) | After Extensive Repairs<br><i>See Note 5</i>             |
| <b>Recommended For Fire Insurance Purposes</b> | Acceptance Test if new; Service Test if used & < 20 Years | Service Test        | Acceptance Test     | Acceptance Test                 | Acceptance Test           | Acceptance or Service Test depending on extent of repair |
| <b>Required For Fire Insurance Purposes</b>    | Acceptance Test if new; Service Test if used & < 20 Years | No Test Required    | No Test Required    | Acceptance Test                 | Acceptance Test           | Acceptance or Service Test depending on extent of repair |
| <b>Factor in FUS Grading</b>                   | Yes   | Yes                 | Yes                 | Yes                             | Yes                       | Yes  |
| <b>Required By Listing Agency</b>              | Acceptance Test   | No                  | No                  | No                              | N/A                       | Acceptance Test  |
| <b>Required By NFPA<br/><i>See Note 6</i></b>  | Acceptance Test   | Annual Service Test | Annual Service Test | Annual Service Test             | Annual Service Test       | Service Test   |

*Note 1: See: 'Service Tests for Used or Rebuilt Fire Apparatus' for description of applicable tests*

*Note 2: Acceptance Tests consist of 60 minute capacity and 30 minute pressure tests*

*Note 3: Service Tests consist of 20 minute capacity test and 10 minute pressure test in addition to other listed tests*

***Note 4: Apparatus exceeding 20 years of age may not be considered to be eligible for insurance grading purposes regardless of testing. Application must be made in writing to Fire Underwriters Survey for an extension of the grade-able life of the apparatus.***

*Note 5: Testing after extensive repairs should occur regardless of apparatus age within reason.*

*Note 6: Acceptance Tests: See NFPA 1901, Standard for Automotive Fire Apparatus*

*Service Tests: See NFPA 1911, Standard for Service Tests of Fire Pump Systems on Fire Apparatus, Article 5.1*



## SERVICE TESTS FOR USED OR MODIFIED FIRE APPARATUS

The intent of this document is to ensure that all used or modified fire apparatus, equipped with a pump or used for tanker service, essentially meet the requirements of Underwriters' Laboratories of Canada (ULC) "Standard for Automobile Fire Fighting Apparatus" S515-04 or subsequent (current) editions of the Standard. Full adherence with the following specified tests is recommended when purchasing used apparatus.

### **Weight Tests**

#### **Load Balance Test:**

When fully laden (including a 460kg (1000 lbs) personnel weight, full fuel and water tanks, specified load of hose and miscellaneous equipment), the vehicle shall have a load balance of 22% to 50% of total vehicle mass on the front axle and 50% to 78% of this mass on the rear axle.

Distribution of mass of 33% and 67% respectively on the front and rear axles is preferable for a vehicle having dual rear tires or tandem rear axles.

For a vehicle having tandem rear axles and dual tires on each axle, a loading of between 18% and 25% on the front axle with the balance of mass on the rear axles is permissible.

### **Road Tests**

#### **Acceleration Tests:**

2.1.1) From a standing start, the apparatus shall attain a true speed of 55 km/h (35 mph) within 25 seconds for Pumpers carrying up to 3,150 litres (700 gallons) of water.

For apparatus carrying in excess of 3,150 litres (700 gallons) or apparatus equipped with aerial ladders or elevating platforms, a true speed of 55 km/h (35 mph) in 30 seconds should be attained.

2.1.2) The vehicle should attain a top speed of at least 80 km/h (50mph).

#### **Braking Test:**

The service brakes shall be capable of bringing the fully laden apparatus to a complete stop from an initial speed of 30 km/h (20 mph) in a distance not exceeding 9 metres (30 feet) by actual measurement. The test should be conducted on a dry, hard surfaced road that is free of loose material, oil and grease.





## **Pump Performance Tests**

### **Hydrostatic Test**

Recent evidence of hydrostatic testing of the pump for 10 minutes at a minimum pressure of 3,400 kPa (500 psi). APPLICABLE TO NEW OR REBUILT PUMPS ONLY (see 3.3).

### **Priming and Suction Capability Tests**

#### **Vacuum Test:**

The pump priming device, with a capped suction at least 6 metres (20 feet) long, shall develop -75 kPa (22 inches of mercury) at altitudes up to 300 metres (1000 feet) and hold the vacuum with a drop of not in excess of 34 kPa (10 inches of mercury) in 10 minutes.

For every 300 metres (1000 feet) of elevation, the required vacuum shall be reduced 3.4 kPa (1 inch mercury).

The primer shall not be used after the 10-minute test period has been started. The test shall be made with discharge outlets uncapped.

#### **Suction Capability Test:**

The pump (in parallel or series) when dry, shall be capable of taking suction and discharging water with a lift of not more than 3 metres (10 feet) through 6 metres (20 feet) of suction hose of appropriate size, in not more than 30 seconds and not over 45 seconds for 6000 L/min (1320 lgpm) or larger capacity pumps. Where front or rear suction is provided on midship pumps, an additional 10 seconds priming time will be allowed. The test shall be conducted with all discharge caps removed.

### **Pump Performance**

#### **Capacity Test:**

Consists of drafting water (preferably with a 10 feet lift) and pumping the rated capacity at 1000 kPa (150 psi) net pump pressure for a continuous period of at least 1 hour.

#### **Pressure Test:**

Under the same conditions as in 3.3.1 above pumping 50% of the rated capacity at 1700 kPa (250 psi) net pump pressure for at least ½ hour



For additional information on the above noted tests and test procedures, the following documents provide useful data:

- Underwriters Laboratories of Canada (ULC) publication titled S515 Standard for Automobile Fire Fighting Apparatus, latest edition.
- Fire Underwriters Survey (FUS) publication titled Fire Stream Tables and Testing Data latest edition.
- International Fire Service Training Association (IFSTA) publication titled Fire Department Pumping Apparatus, latest edition.
- National Fire Protection Association (NFPA) 1901 Standard for Automotive Fire Apparatus, latest edition.
- National Fire Protection Association (NFPA) 1911 Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus, latest edition.
- National Fire Protection Association (NFPA) 1912 Standard for Fire Apparatus Refurbishing, latest edition.

For further information regarding the acceptability of emergency apparatus for fire insurance grading purposes, please contact:

| Western Canada  | Quebec   | Ontario  | Atlantic Canada  |
|---|--|--|--|
| Risk Management Services<br>Fire Underwriters Survey<br>3999 Henning Drive<br>Burnaby, BC V5C 6P9<br>1-800-665-5661 | Risk Management Services<br>Fire Underwriters Survey<br>1611 Crémazie Blvd. East<br>Montreal, Quebec H2M 2P2<br>1-800-263-5361 | Risk Management Services<br>Fire Underwriters Survey<br>150 Commerce Valley Drive, West<br>Markham, Ontario L3T 7Z3<br>1-800- 268-8080 | Risk Management Services<br>Fire Underwriters Survey<br>238 Brownlow Avenue, Suite 300<br>Dartmouth, Nova Scotia B3B 1Y2<br>1-800-639-4528 |





# The Canadian Fire Insurance Grading Index

Robert McGuinness P.Eng  
*Public Fire Protection Specialist*



**Fire Underwriters Survey™**  
*A SERVICE TO INSURERS AND MUNICIPALITIES*

History and Origins  
of  
Fire Underwriters Survey



# Events leading to formation

“The high incidence of large fires in 19th century Canadian cities had the inevitable consequence of driving numerous fire insurance companies into bankruptcy.”

“The cause most often cited for the poor showing of fire insurance companies was inadequate income driven dangerously low by stiff competition”

*Excerpts from: "The Underwriters, the History of the Insurers' Advisory Organization and its predecessors, the Canadian Fire Underwriters' Association and the Canadian Underwriters' Association," by Christopher L. Hives, 1985.*

# Competition

“One of the chief contributors to low rates was a class of insurance middlemen known as 'drummers' or 'runners' , an outgrowth of the American insurance industry that found its way into Canada. The drummer claimed to represent all insurance companies and received a commission for all business he placed. In reality, he hawked the customers' insurance from office to office, placing it at the lowest premium.”

*Excerpts from: "The Underwriters, the History of the Insurers' Advisory Organization and its predecessors, the Canadian Fire Underwriters' Association and the Canadian Underwriters' Association," by Christopher L. Hives, 1985.*

# Historical Perspective



- Fires in major North American cities such as San Francisco and Toronto destroyed entire blocks and sections of cities
- Financial stability of insurers threatened
- Team of engineers conducted insurer-sponsored study of fire conditions in major cities
- Standard schedule for grading cities and towns with reference to their fire defenses established

*The Great Toronto Fire 1904*

# Fire Underwriters Survey (FUS)

- 1883 formation of the Canadian Fire Underwriters Association (and National Board of Fire Underwriters around this time)
- 1930's transition to Canadian Underwriters Association
- 1970's transition to Insurers Advisory Organization and Fire Underwriters Survey
- 2012 transition to Opta Information Intelligence and Fire Underwriters Survey
- Fire defense reviews carried out since approximately 1900 to establish insurance grading classifications



What are the Grades?



# PFPC and DPG System

## **Public Fire Protection Classification (PFPC)**

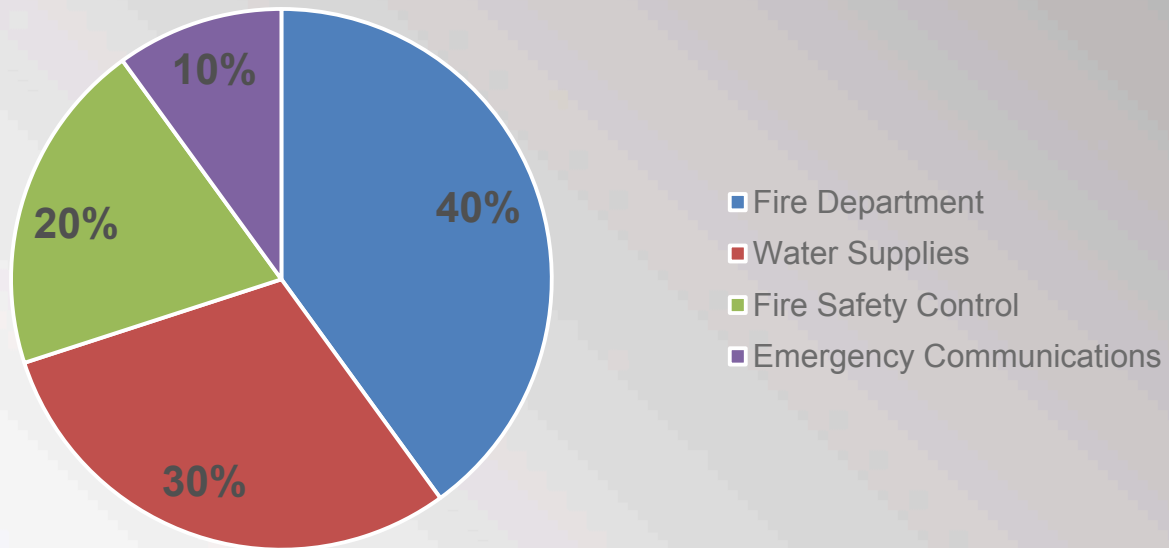
- Commercial Lines
- Grades between 1 and 10, 1 being the highest
- Analysis with many variables

## **Dwelling Protection Grade (DPG)**

- Personal Lines
- Grades between 1 and 5, 1 being the highest
- Analysis with limited variables

# PFPC System

PFPC Category Weightings

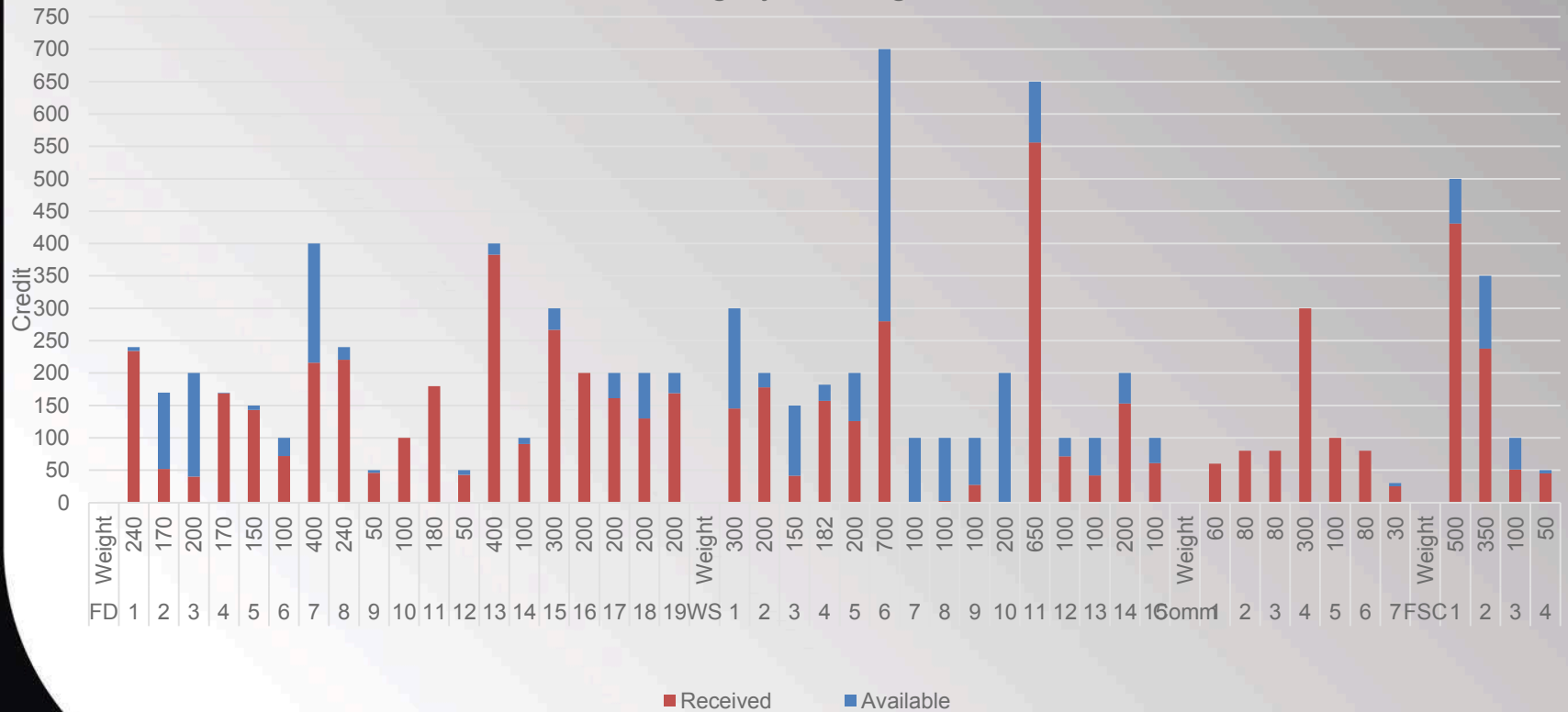


# How is the PFPC determined?

- Risk assessment: Fire Flows -> Benchmark
- Analysis of many variables (regression)
- Calculation of relative classifications
- Divergence analysis
- Final Classification = PFPC

# PFPC System

Sub Category Grading Items



# DPG System

| DPG   | Overview  |
|-------|---|
| 1     | Career, fully protected, hydrant water system                   |
| 2     | Composite, fully protected, hydrant water system                |
| 3A    | Auxiliary/Volunteer/POC, fully protection, hydrant water system |
| 3B(S) | Auxiliary/Volunteer/POC, Superior Shuttle (STSS)                |
| 3B    | Auxiliary/Volunteer/POC, semi protected, Standard Shuttle       |
| 4     | Auxiliary/Volunteer/POC, limited protection                     |
| 5     | Unprotected   |

How are the Grades  
accessed, used, and  
interpreted by the  
subscribers?



# FUS and the Insurance Industry

- FUS is independently owned by Opta Information Intelligence
- FUS is funded through subscription and consulting services
- FUS does not set rates
- FUS advises the Industry on how to interpret Grades but final decisions are internal policies of individual companies

“Being voluntary, it’s existence will depend entirely upon the loyal and good faith of its members. With the results of past experience before them, it is hoped that there will be no backsliders found among the membership of this organization,…”

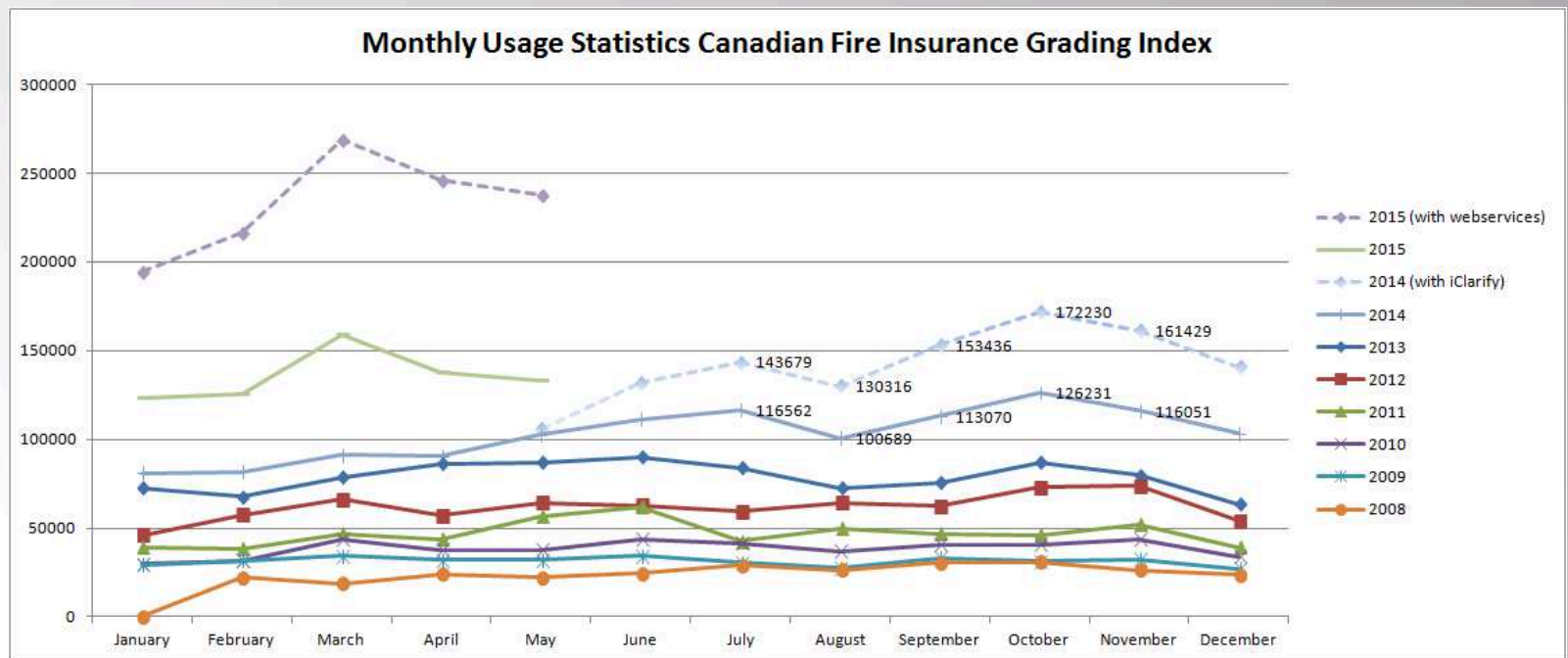
- Insurance and Financial Chronicle, August, 1883



# Accessing the Grades

- Historically the IAO annually issued a manual with a list of Grades. Community interpretation was difficult
- 2010 began to move to GIS database (sample)
- User now accesses the Grading Index online  
<https://www1.optaintel.ca/fus/locsearch.asp>
- User enters address and determines DPG or PFPC
- Direct web service
- Brokers also beginning to access Grading Index

# Accessing the Grades



# Interpreting the Grades (FUS)

## Public Fire Protection Classification (PFPC)

- Determine Grade for Community/Area
- Apply recommended adjustments

RiskSCOR Table:

|                   |              | Hydrant Coverage                           |                                   |                                    |
|-------------------|--------------|--|-----------------------------------|------------------------------------|
|                   |              | 2 or more recognized hydrants within 150 m | 1 recognized hydrant within 150 m | No recognized hydrant within 150 m |
| Response Distance | < 2.5 km     | PFPC applies                               | PFPC + 1 applies                  | PFPC 9 applies                     |
|                   | 2.5 - 5.0 km | PFPC + 1 applies                           | PFPC + 2 applies                  | PFPC 9 or 10 applies*              |
|                   | > 5.0 km     | PFPC 10 applies                            | PFPC 10 applies                   | PFPC 10 applies                    |

\* If PFPC for area is 10, apply 10, if PFPC for area is 9 or better, apply 9.

# Interpreting the Grades (FUS)

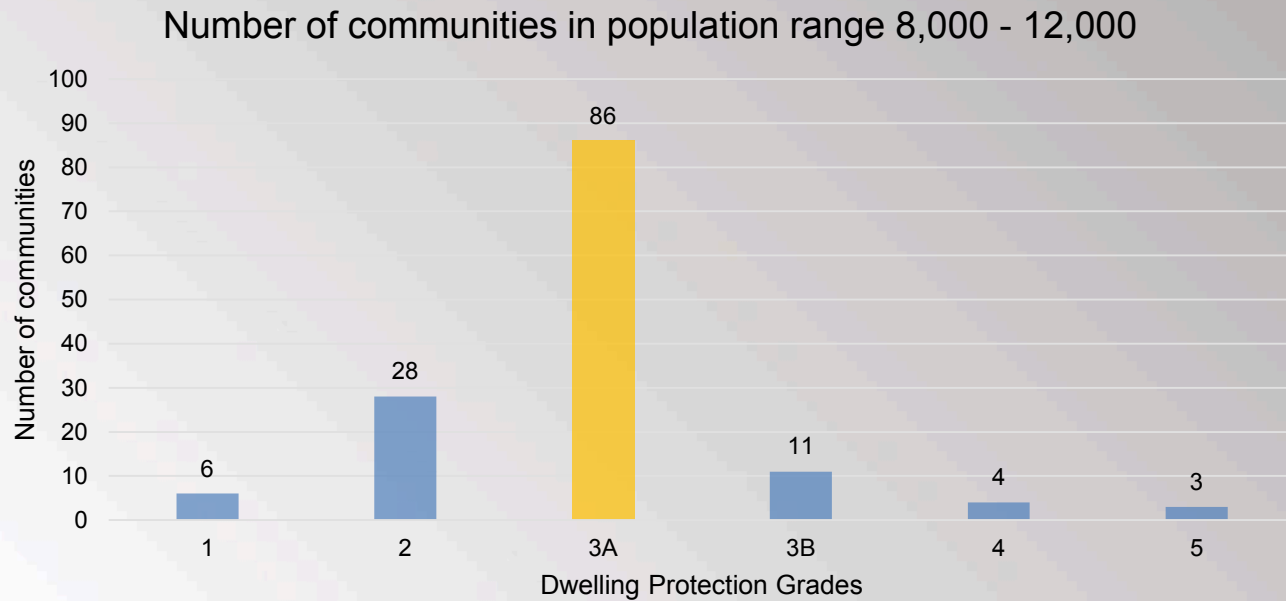
## **Dwelling Protection Grades (DPG)**

- Determine Grade for community/area
- Maximum distance to hydrant is 300m
- Maximum distance to fire hall is 8km.

Town of Taber and  
FUS

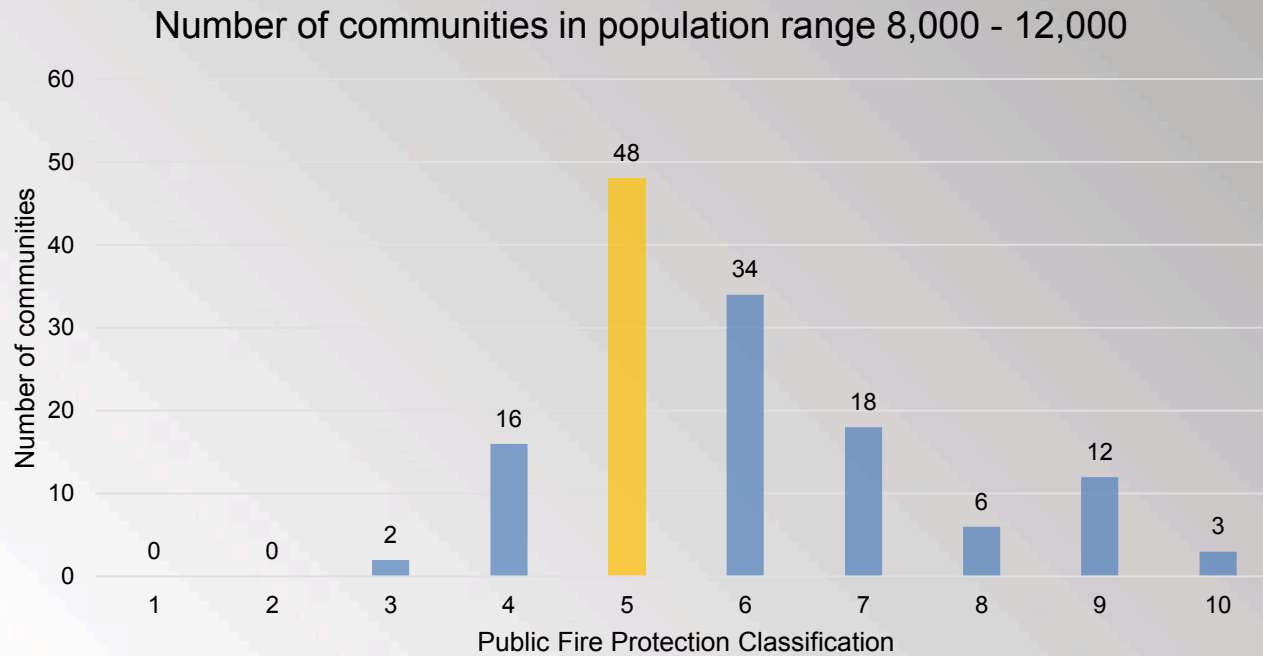


# Town of Taber - DPG



- Town of Taber highlighted DPG

# Town of Taber - PFPC



- Town of Taber highlighted PFPC

# Town of Taber – Age of apparatus

| Apparatus Age                 | Major Cities <sup>3</sup> | Medium Sized Cities <sup>4</sup>                   | Small Communities <sup>5</sup> and Rural Centres                     |
|-------------------------------|---------------------------|--|--|
| 0 – 15 Years                  | First Line Duty           | First Line Duty                                    | First Line Duty  |
| 16 – 20 Years                 | Reserve                   | 2 <sup>nd</sup> Line Duty                          | First Line Duty  |
| 20 – 25 Years<br><sup>1</sup> | No Credit in Grading      | No Credit in Grading<br>or<br>Reserve <sup>2</sup> | No Credit in Grading<br>or<br>2 <sup>nd</sup> Line Duty <sup>2</sup> |
| 26 – 29 Years<br><sup>1</sup> | No Credit in Grading      | No Credit in Grading<br>or<br>Reserve <sup>2</sup> | No Credit in Grading<br>or<br>Reserve <sup>2</sup>                   |
| 30 Years +                    | No Credit in Grading      | No Credit in Grading                               | No Credit in Grading   |



The next steps of Fire  
Insurance Grading



# The Next Steps for FUS

- Continue to connect the Industry with the Grading Index
- Transition Industry to one PFPC system and remove simplified DPG system
- Have communities readily access their own grade details
- Further define terms of reference around data fields
- Continue to complete studies on loss data vs. PFPC Grades
- Continue to adjust Grading Index variable/coefficients considering loss data studies.



## Q and A



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