

**CLEARWATER COUNTY COUNCIL AGENDA**  
**June 14, 2016**  
**9:00 A.M.**  
Council Chambers  
4340 – 47 Avenue, Rocky Mountain House, AB

**10:00 a.m. Delegation – Dean Anderson – Pure High-Speed**

**10:30 a.m. Delegation – Andrew Van Dirsten - Harewaves**

**A. CALL TO ORDER**

**B. AGENDA ADOPTION**

**C. CONFIRMATION OF MINUTES**

1. May 17, 2016 Joint Council Special Meeting Minutes
2. May 24, 2016 Regular Meeting Minutes
3. May 24, 2016 Public Hearing Minutes

**D. PUBLIC WORKS**

1. Caroline Industrial Land Development

**E. COMMUNITY & PROTECTIVE SERVICES**

1. Fire Services Station Location Study (Leslieville/Condor)
2. 10:00 a.m. Delegation: Pure High Speed
3. 10:30 a.m. Delegation: Harewaves

**F. CORPORATE SERVICES**

1. Village of Caroline Lending Bylaw 1017/16
2. Bylaw 1016/16 Rocky Rod and Gun Club Municipal Tax Exemption

**G. MUNICIPAL**

1. Municipal Inspection
2. May 30 Open House Meeting Follow Up

## **H. INFORMATION**

1. CAO's Report
2. Public Works Director's Report
3. Councillor's Verbal Report
4. Accounts Payable Listing
5. Councillor Remuneration

## **I. IN CAMERA\***

1. Land
2. Land
3. Legal

\* For discussions relating to and in accordance with: a) the Municipal Government Act, Section 197(2) and b) the Freedom of Information and Protection of Privacy Act, Sections 21(1)(ii); 24(1)(a)(c) and (g); 25(1)(c)(iii); and 27(1)(a)

## **J. ADJOURNMENT**

### ***POSTPONED ITEMS***

<b><u>Date</u></b>	<b><u>Item, Reason and Status</u></b>
03/08/16	<b>087/16 Condor Community Centre Grant Request</b> STATUS: Pending Information, Community & Protective Services/Public Works



## AGENDA ITEM

<b>PROJECT:</b> Caroline Industrial Land Development		
<b>PRESENTATION DATE:</b> June 14, 2016		
<b>DEPARTMENT:</b> Public Works	<b>WRITTEN BY:</b> Erik Hansen	<b>REVIEWED BY:</b> Marshall Morton, Ron Leaf
<b>BUDGET IMPLICATION:</b> <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Funded by Dept. <input type="checkbox"/> Reallocation		
<b>LEGISLATIVE DIRECTION:</b> <input checked="" type="checkbox"/> None <input type="checkbox"/> Provincial Legislation (cite) <input type="checkbox"/> County Bylaw or Policy (cite)		
<b>STRATEGIC PLAN THEME:</b> Managing our growth	<b>PRIORITY AREA:</b> 1.1	<b>STRATEGIES:</b> 1.1.1
<b>ATTACHMENT(S):</b> N/A		
<b>RECOMMENDATION:</b> That Council receives this item as information.		

**BACKGROUND:** The Administration has tendered the grading and other work scheduled for the Clearwater County phase 1 industrial land development in Caroline. This tender included the construction of a storm water management system, internal roads, lot grading, construction of the salt / sand storage facility base and a Type IIIa intersection treatment (Hwy 54). A Tender Opening was held on May 31, 2016 at 2:00 p.m. for the work outlined above. We received 15 bids, with **Northside Construction Partnership** being the low valid bidder. The cost for this portion of the project came in **\$993,115.00** under the budgeted amount of **\$3,429,368.00**.

**Bidders List**

<b>Northside Construction Partnership</b>	<b>\$ 1,995,730.00</b>
Pidherney's Inc.	\$ 2,127,929.60
Howitt Construction Ltd.	\$ 2,302,056.10
Borger Earthworks Ltd.	\$ 2,419,055.42
Rubydale Asphalt Works Ltd.	\$ 2,524,927.74
Contour Earthmoving Ltd.	\$ 2,629,593.81
Central Construction Group Ltd	\$ 2,827,111.00
Weinrich Contracting Ltd.	\$ 2,893,787.45
M.A.P. Earthworks Ltd.	\$ 2,955,979.96
Emard Excavating Ltd.	\$ 2,993,365.46
MCL Group Ltd.	\$ 3,106,670.75
Richardson Bros. (Olds) Ltd.	\$ 3,596,576.38
Chemco Electrical Contractors Ltd.	\$ 3,608,230.81
Prairie North Construction Ltd.	\$ 3,943,920.00
Thompson Bros. Construction LP	\$ 4,269,368.05

<b>Northside Construction Partnership</b>	<b>Tendered Price</b>	<b>Budget</b>
Contract Amount (Less Site Occ.)	\$ 1,937,230.00	\$3,102,605.00
Contingency (10%)	\$ 193,723.00	Included
Potential Site Occ. Bonus	\$ 6,300.00	Included
Potential ACP (EPS) Bonus	\$ 7,000.00	Included
Construction Engineering	\$ 292,000.00	\$ 326,763.00
<b>Total</b>	<b>\$ 2,436,253.00</b>	<b>\$ 3,429,368.00</b>

As Council may recall, the request for proposal (RFP) for the salt / sand storage building in Rocky and Caroline was awarded to Vertical Building Solutions in January this year. The clearing was tendered and completed earlier this spring by Pidherney's Inc.

<b>Vertical Building Solutions</b>	<b>Tendered Price</b>	<b>Budget</b>
80' x 150' APEX Building	\$ 276,005.00	\$ 384,949.50
Contingency	\$ 13,800.00	\$ 15,025.25
Misc.	\$ 25,000.00	\$ 25,000.00
Engineering	\$ 15,025.00	\$ 15,025.25
<b>Total</b>	<b>\$ 329,830.00</b>	<b>\$ 440,000.00</b>

<b>Pidherney's Inc.</b>	<b>Tendered Price</b>	<b>Budget</b>
Clearing 16 HA.	\$ 40,824.00	Included
Contingency (10%)	\$ 4,082.40	Included
Engineering	\$ 4,082.40	Included
<b>Total</b>	<b>\$ 48,988.80</b>	<b>\$ 64,000.00</b>

Moving forward, Administration is finalizing the subdivision process with the Village of Caroline, working with the shallow utility providers for pricing and installation timelines and awaiting Alberta Public Lands determination on a small wetland within the development. The 2016 budget for this project in its entirety is \$4,393,975.00



## AGENDA ITEM

<b>PROJECT: Clearwater County Fire Services Station Location Study</b>		
<b>PRESENTATION DATE: June 14, 2016</b>		
<b>DEPARTMENT:</b> CRFRS / CPS Division	<b>WRITTEN BY:</b> Ted Hickey	<b>REVIEWED BY:</b> R. Leaf, CAO
<b>BUDGET IMPLICATION:</b> <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Funded by Dept. <input type="checkbox"/> Reallocation		
<b>LEGISLATIVE DIRECTION:</b> <input type="checkbox"/> None <input type="checkbox"/> Provincial Legislation (cite) <input type="checkbox"/> County Bylaw or Policy (cite) Bylaw: _____ Policy: _____		
<b>STRATEGIC PLAN THEME:</b> 2. Well Governed and Leading Organization 3: Community Well-Being	<b>PRIORITY AREA:</b> 2.2, 3.2	<b>STRATEGIES:</b> 2.2.1, 2.2.2, 3.2.2
<b>ATTACHMENTS:</b> Clearwater County Fire Services Station Location Study Report May 2016. Letters Received from Consultation Process		
<b>RECOMMENDATION:</b> 1. That Council receives the Clearwater County Fire Services Station Location Study as information. 2. That Council directs Administration to proceed with purchase of land to be followed by engineered design and cost estimates for 2017 Capital Budget.		

### BACKGROUND:

In latter 2015, Council provided direction to the Administration to retain a consultant to assist in the study of potential locations of a Fire Station should the amalgamation of the Leslieville and Condor Fire Stations occur.

As of May 2016:

- A Terms of Reference and selection of a consultant was completed, with approved budget funding in place for completion of the study.
- Compilation and review of CRFRS response data, County mapping, and documents completed along with a theoretical emergency response travel time GIS model created.
- Consultation with CRFRS Chief Officers completed with indication of high CRFRS fire fighters support.

- Consultation with CRFRS fire fighters completed on April 19, 2016 with indication of high CRFRS fire fighters support.
- Consultation with Community Stakeholders completed on May 4, 2016 with general verbal indication of support. 3 Written responses received as a result of this meeting (attached)
- The consulting firm of ERMCo has completed and submitted a report on May 18, 2016 regarding the amalgamation of the Leslieville and Condor Fire Stations.
  - The study details additional factors involved in determining the station location adequacy and implications regarding the delivery of services.
  - Rationale and recommendation to proceed with next steps for Council's consideration.

The Approved 2016 Capital Budget has the estimated funding to proceed with purchase of land with estimates for project construction completion funding forecasted in 2017.

Given that to proceed with the next steps is the purchase of land and construction process, this involves the further investigation of suitable available lands and its purchase.

Upon Council's approval, Administration will proceed with the following actions:

1. Investigate and negotiate the purchase of appropriate land.
2. Draft an offer to purchase land, subject to budget limits as well as any subject to requirements of subdivision of land.
3. Following the land purchase, undertake engineering and design and preparation of tender documents, including preliminary cost estimates for inclusion in the 2017 budget.

# Clearwater County

## Fire Services Station Location Study

Date: May, 2016

Prepared by: Dan Paulsen



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## EXECUTIVE SUMMARY

As a consultant with Emergency Response Management Consulting (ERMC), the author was contracted to look at the feasibility and impact of amalgamating the fire stations at the hamlets of Condor and Leslieville into one strategically located site while maintaining or enhancing the existing service level.

This report will provide an objective benchmark to compare existing services, with a view toward a long term strategy for Clearwater Council to consider.

Between December 17<sup>th</sup>, 2015 and May 4<sup>th</sup>, 2016, the consultant conducted interviews and site visits with the Regional Fire Steering Committee and Clearwater Emergency Response Service senior staff, Clearwater Council, Firefighters from Condor and Leslieville and the citizens of these two Hamlets.

References used in the creation of this report are Bill C-45: Amendments to the Criminal Code, specific best practices of National Fire Protection Association 1720, Fex-003, Fire Fighter Code of Practice, Provincial Occupational Health and Safety, Fire Underwriters' Survey and input from the local consultation process.

The Request for Proposal (RFP) required objective data collected from fire service records and Geographic Information System (GIS) for:

- Target Hazard Analysis
- Future community growth including placement of major industry
- Volunteer firefighter travel distances
- Travel times to target hazards
- Arterial road access
- Water supply
- Communications capacity
- Training ground options

The response data, as supplied to the consultant, was varied in completeness; as the body of this report outlines, analysis required that a number of the data fields be omitted or averaged; however, GIS estimates of travel times correlate well with travel times of actual responses.

Other considerations include:

- Leslieville and Condor respond as a single alarm entity, according to operating guidelines.
- The two stations are 12 kilometers apart
- 66.5% of the workload is medically related (EMS and MVC)

Considering **travel time only**, throughout the region, analysis indicates a 37% average compliance to National Fire Protection Association (NFPA) Standard on Volunteer Fire Response, section 1720 (Figure 1, page 8). Best practice travel time is 14 minutes. Compliance with NFPA 1720 within the hamlet boundaries of Condor was approximately 55% and 75% within Leslieville. Given the limited amount of response data, these numbers represent a trend rather than statistical validation.

Based on information found in both the Clearwater County Emergency Services website and the publicly-available County Strategic Plan, the desire of municipal governors is for CRFRS to provide fire protection through volunteer service for the identified hazards of the county, while meeting provincially legislated responsibilities. This includes Emergency Management, Fire Prevention and Training.

With that in mind, six options have been outlined on page 27 of this report. From review of the data supplied by the Regional Fire Service, GIS mapping representing existing and projected services and input from key stakeholders, the consultant feels the most suitable option would be Option #1. A fire station near the intersection of Highway 761 and TWP Rd 392 would result in equal support for both communities of Condor and Leslieville along with an updated station design to meet current provincial regulations. Through engagement events both Fire Fighter and citizen from the Hamlets of Condor and Leslieville favored the option of the co-located station.

The fire station design should:

- comply with FEX003-07 regarding fire station design and future growth
- consider the need for sufficient water storage to meet required water flows for continued fire operations
- provide a training site to meet the needs of the fire staff

The general consensus from all parties interviewed support the combined station proposals and process.

Outside the scope of this report is an analysis of whether an effective force was present at responses. By definition, an effective response force is the number of responders required to ensure both safety of personnel and the ability to mitigate incident. This number will impact insurance rates, shuttled water supply and, as outlined in NFPA 1720 4.7.1: The fire department shall have the capability for sustained operations, including fire suppression; engagement in search and rescue, forcible entry, ventilation, and preservation of property; accountability for personnel; the deployment of a dedicated rapid intervention crew (RIC); and provision of support activities for those situations that are beyond the capability of the initial attack.

Though not part of this study, it is recommended that an assessment of signage, lighting, sight lines and merge capacity of township roads accessing Highway 11 be undertaken with the goal of reducing the frequency of motor vehicle accidents that constitute the majority of demand on this fire service.

Another consideration for future study would be creation of a fire station to cover the northeast portion of the County that is presently a long response from the Leslieville and Condor stations.

Respectfully submitted,  
May 18, 2016  
Dan Paulsen

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## 1.0 INTRODUCTION

Emergency Response Management Consulting (ERMC) based in Edmonton Alberta, through a Request for Proposal (RFP), were contracted by Clearwater County to offer a quantitative opinion on the impact of an amalgamation of two fire stations located in the Clearwater Regional Fire Rescue Service district at Leslieville and Condor, Alberta. The impacts to be evaluated will in particular be directed to any change in the present fire service levels currently provided by these two locations.

According to the Clearwater County web page, the scope of practice for **Emergency Services Fire Protection** is as follows:

*“Clearwater Regional Fire Rescue Services was established 1999 which combined the Emergency Services from Clearwater County, Town of Rocky Mountain House, and Village of Caroline. The Regional Fire Rescue Services protects Clearwater County and the Municipalities with five stations. The fire stations are located in Nordegg, Rocky Mountain House, Leslieville, Condor, and Caroline. With these five stations, the Fire Rescue Services provide Fire Suppression, Vehicle Extrication, First Medical Response, Water Rescue, Ice Rescue, and Public Education services to the residents of Clearwater County and area.”*

*“There are two "Jaws of Life" systems, six pumper trucks, five water trucks, a telephone and radio paging system, and a radio communications system.”*

## 2.0 PROJECT SCOPE

Outlined in the Request for Proposal (RFP), the scope of this study is to conduct a high level theoretical review of Fire Station relocation options and potential impacts for the Clearwater Regional Fire Rescue Service (CRFRS) and the communities they serve. The two current locations in the Hamlets of Leslieville and Condor will be considered for possible consolidation at a new suitable site.

Identified benchmarks within the RFP include engagement with Municipal Council, Fire Service officials and other community members and stakeholders. Commentary will be provided on required legislative mandates, industry based best practice models, travel times, water supply, wildland interface and comment on potential impact on property insurance rates.



## 3.0 METHODOLOGY

*“Community risk assessment begins with identification of the hazards present in the community. Given that a particular hazard exists in a community, the consequences of an emergency event (e.g. fire) in such a hazard are ultimately determined by the mitigation efforts. In other words, the consequences are the results of the combination of the risk level of the hazard, the duration and nature of the event, property loss (e.g. building damage or collapse), personal injury or loss of life, economic losses,*

*interruption of business and related operations, and damage to the environment. These consequences are often grouped into four categories.”*

- **Human impacts** (civilian and firefighter injuries and deaths)
- **Economic impacts** (property loss both direct and indirect effects)
- **Psychological impact** (public confidence)
- **Functional impact** (continuity of operations)

**Fire Service Deployment:**  
**Assessing Community Vulnerability**  
 (2nd Edition-High-Rise Implementation Guide)  
 Urban Fire Forum 2013

Though the above quote was directed at the urban fire situation, in particular high rise construction, it is a general statement about the risk in a community. The local municipal government dictates the level of risk a community is willing to accept, based on reasonably presented information to form the basis of this decision. Some of the key factors that will influence this decision will be legislated mandates, hazard risk vulnerability, financial implications and insurance needs.

Key considerations to move or consolidate the two stations at Condor and Leslieville:

1. Mandates that are required of Emergency Services under both Federal Law, Provincial Statutes and Municipal Bylaws.
2. Insurance classifications
3. Best Practice models

### **1. Mandates that are required of all Emergency Services**

All communities that desire or have fire protection are subject to legislative regulations, whether these are fully paid, composite or volunteer. Leading these mandated regulations are Occupational Health and Safety (OH&S) both Federal and Provincial.

Federally Bill C45 was an amendment to the Criminal Code of Canada, March 31, 2004 which now can find organizations, their leaders and managers criminally liable for serious safety code violations. The legislation was a result of the Westray Mine disaster in Nova Scotia in 1992, where the company involved failed to act on repeated complaints of unsafe conditions resulting in the accidental death of 26 workers. The same Bill C45 was applied to fire and municipality leadership in Yellowknife over the death of two firefighters resulting in punitive action.



The amendment requires that individuals who are directing the work of others take reasonable steps to ensure their safety or face potential criminal liability if a worker or anyone else is injured. The relevant section reads as follows:

*“217.1 Everyone who undertakes, or has the authority, to direct how another person does work or performs a task is under a legal duty to take reasonable steps to prevent bodily harm to that person, or any other person, arising from that work or task.”*

Amendments to the Criminal Code mean that representatives of the organization who contribute to the “physical element” of the offence have been expanded from directors and officers to all representatives who act on behalf of the organization. This list now includes directors, partners, employees, members, agents or contractors of the organization. Bill C-45 has increased the personal risk faced by fire chiefs, city managers and regional board directors. If fire services are delivered in an unsafe manner, and they are aware of the problems and fail to address them, criminal liability may result.

On the Provincial level, the Alberta Fire Fighter Code of Practice FEX003-07 (AFFCP) is a mandatory document. *“This Code of Practice describes the minimum standards to which a fire service must comply with the above mentioned health and safety legislation and looks specifically at those sections of the legislation where clarification and explanation in their application to the fire service and emergency operations has been requested. Where there is no explanation provided, the reader is referred back to the applicable section(s) of the OHS Act, Regulation or Code.”*

A subsequent document mandating emergency services is found in the Emergency Management Act of Alberta:

**Revised Statutes of Alberta 2000**

**Chapter E-6.8, Current as of December 11, 2013**

*Municipal emergency organization*

*11 A local authority*

*(a) shall, at all times, be responsible for the direction and control of the local authority’s emergency response unless the Government assumes direction and control under section 18;*

*(b) shall prepare and approve emergency plans and programs;*

**SAFETY CODES ACT**

**Revised Statutes of Alberta 2000**

**Chapter S-1, Current as of June 19, 2015**

*Part 2*

*Administration*

*Overall administration*

13(1) The Minister administers this Act but an accredited municipality, an accredited regional services commission, an accredited corporation and the Authority shall provide for the administration of this Act in accordance with

(a) the order that designated the accredited municipality, accredited regional services commission or accredited corporation, or

(b) the order referred to in section 18(d.1) authorizing the establishment of the Authority

Herein, there are references to the building standards of the community, empowered by both the National Building and National Fire Codes of Canada.

## 2. Insurance classifications

Fire Underwriters Survey is an organization that correlates fire insurance rates for the community or town based on fire service levels of deliverables.

A community's Public Fire Protection Classification (PFPC) is determined by benchmarks in the following major areas:

1. Fire Risk, including analysis of required fire flows for individual buildings, building groups and zones of similar risk (Fire Flow Demand Zones) of the community
2. Fire Department, including apparatus, equipment, staffing, training, operations and geographic distribution of fire companies
3. Water Supply system, including source to distribution analysis, redundancy factors, condition and maintenance of various components, and storage volume
4. Fire Prevention and Fire Safety Control programs including public education, codes/bylaws implementation and use of codes/bylaws in managing the level of fire risk throughout communities
5. Emergency Communication systems, including telephone systems, telephone lines, staffing, and dispatching systems

A ranking system of 1 to 10 is applied and insurance rates are reflected accordingly. The rank indicates how well communities are equipped to combat major fires that may be expected to occur in commercial, industrial, institutional and multi-family residential properties. Protected ranking would be the highest in the 1 to 3 range and a 10, or unprotected, indicates that the area's fire-suppression program does not meet the minimum criteria of the Classification Standard for Public Fire Protection.

Dwelling Protection Grade (DPG) reflects the ability of a community to handle fires in small buildings (e.g. single family dwellings). This is a 1 to 5 grading and requirements can be found in Appendix “B”

As outlined in the Fire Protection Underwriters Standards, adequate Fire Force must be evaluated to receive DPG ratings. The minimum is listed:

For each fire hall with a Dwelling Protection Grade 3B, the credited available responding fire force will include at a minimum:

1 Fire Chief (required to respond but not required to be on-duty)

15 auxiliary fire fighters scheduled to respond in addition to the number of personnel required to conduct mobile water supply shuttle operations

### **3. Best Practice models**

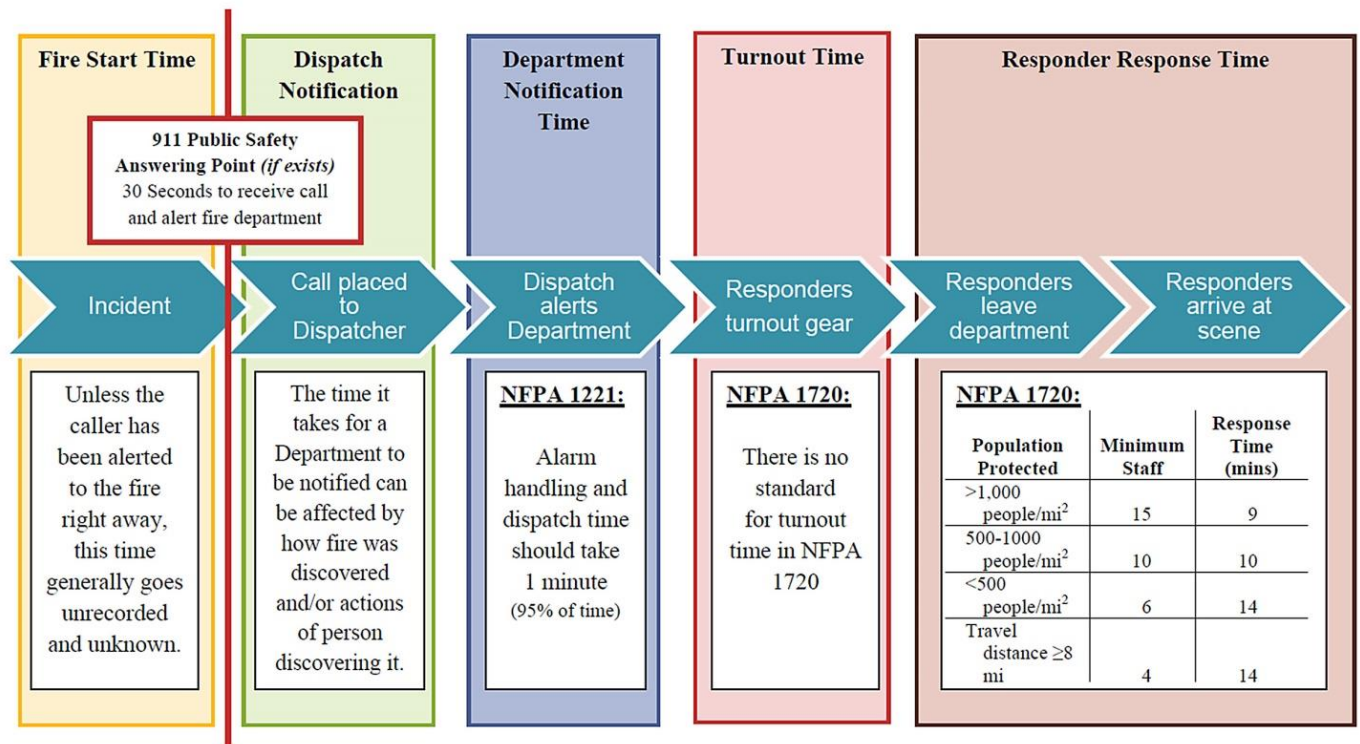
The National Fire Protection Association (NFPA) document has been developed by consensus of panel members and reflects a combined history of fire losses. The panel of the NFPA are volunteers from both the fire service and industry. Through scientific research, the Standards reflect cumulative knowledge and represent the “best practices” within the industry of fire protection. There are multiple chapters within the Standards that reflect what the fire service **should** be able to perform but as stated above, this level of service is dictated by the municipal government.

NFPA 1720 is the Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments. This standard is a valuable resource for the establishment and the operation of a volunteer department; in this study, reference will be made to best practice travel times.

NFPA 1720 applies to fire services that do not have personnel on duty at the station; volunteers respond to page-out from home, work, or elsewhere. This is a key variable in response time. Volunteers cannot guarantee availability like career, on-duty staff do. In this standard, response goal criteria reflect the nature of a volunteer response system. In general, NFPA 1720 provides the following benchmarks:

<p><b>Clearwater County</b> Fire Services Station Location Study</p>	<p>Dan Paulsen Date: May / 2016</p>
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**Incident Development and Response Timeline and NFPA 1221 and 1720 Recommendations for Volunteer Firefighters**



Source: NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems and NFPA: 1720 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments.

Figure 1



**Clearwater County Strategic Plan 2015 - 2018**

*“Strategies*

- 3.2.1 Evaluate and plan the current public safety and emergency services needs within the broader Rocky/Caroline/Clearwater community.
- 3.2.2 Continue to support the Clearwater Regional Fire Rescue Services in fulfilling the County’s legislated responsibilities in regard to fire prevention, suppression and training and will rely principally on volunteer firefighters for the provision of fire department related emergency services.
- 3.2.3 Continue to support the Clearwater Regional Emergency Management Agency (CREMA) in meeting Council’s legislated responsibilities with regard to emergency and disaster response, preparedness and recovery”

Based on information found in both the Clearwater County Emergency Services website and the publicly-available County Strategic Plan, the desire of municipal governors is for CRFRS to provide fire protection through volunteer service for the identified hazards of the county, while meeting provincially legislated responsibilities. This includes Emergency Management, Fire Prevention and Training.

To strategically locate a fire station, in keeping with the above mandates, community leaders must evaluate certain possible outcomes. With limited resources, both physical, and financial, the choice for coverage needs to consider both frequency and severity. Do high frequency, low severity events such as dumpster fires deserve greater attention than a low frequency but high impact event such as a major industrial site or school? A fire fatality in a residence will affect the entire community and may bring into question the capability of response. On the other hand, the catastrophic loss of a large business can impact the long term sustainability of smaller communities. Response times and effective response forces will generally dictate outcomes.

Other factors to consider related to the fire station location include but not limited to:

- Demographics such as population density and socioeconomic factors
- Planned future community growth
- Volunteer availability
- Volunteer travel distances
- Water supply
- Travel times to target hazards
- Arterial road access
- Communications capacity
- Community accessibility for additional programs
- Training ground options

Quantitative analysis for station location looks at the present service level and compares that to governance mandates. A best practice model of NFPA 1720 **suggests** rural zones with <500 people/sq. mi. for 6 staff to assemble an attack in 14 minutes, 80% of the time. **The most consistent quantifiable factor is travel time.**

Statistics Canada has not recently published a population for Condor; however, Industry Canada shows that Condor's greater rural area had a total population of 1,093 living in 409 dwellings in 2001. With a land area of 240.44 square kilometers (92.83 square

miles), its greater rural area has a population density of 9.0 people per square kilometers (23 square mile).

As a designated place in the 2011 Census, Leslieville had a population of 239 living in 95 of its 105 total dwellings, a 3% increase from its 2006 population of 232. With a land area of 1.84 km<sup>2</sup> (0.71 sq mi), it had a population density of 129.9 people per square kilometer (336.4 square mile) in 2011.



CRFRS uses Fire Pro as the incident reporting system. Data supplied to the consultant:

- Dispatch time (receipt and delivery of dispatch information)
- Chute time (Turn out time by fire fighters)
- Travel time (leaving the station to arrival at the scene)
- Emergency responses of historical incidents by address

County GIS supplied additional information:

- Staff home address
- Key hazard identification
- Present station locations

Polar Geomatics was contracted to plot the geo-coded information resulting in the deployment analysis mapping found in this document.

The above methodology represents a very objective approach to station location analysis at the time that the data was collected. Some the data points are fluid in nature, such as the addresses of volunteer staff and factors effecting travel time such as rural road conditions.

The data field used to build the quantitative picture was a relatively small sample set; 177 emergency calls for Leslieville and 173 for Condor, over a three year period, had sufficient information to contribute to analysis.

Dr. Charles R. Jennings, PhD, AIFireE, of John Jay College of Criminal Justice City University of New York wrote in the paper "THE PROMISE AND PITFALLS OF FIRE SERVICE DEPLOYMENT ANALYSIS METHODS:

*"Another problem of deployment analysis is how to treat volunteers? How should the working and residential location of volunteers influence the location of stations? If and*

*when we open the Pandora's Box of volunteer locations relative to fire stations, what rules do we use to estimate the amount of time it will take a minimum complement to reach the station at different times of the day. We need further study on this issue. Achieving economies of scale sufficient to support deployment analysis often requires several fire departments cooperating or imposition of planning effort by a higher level of government. A minimum service area to undertake a sophisticated deployment analysis might be on the order of 75,000 population or 40 square miles at a minimum, although this is only an experiential "guess."*

As Dr. Jennings noted, the sample size used for this analysis is significantly small when compared to usual practice in deployment analysis; however, this consultant believes that with the data available and input from the various stakeholders, a noticeable trend was established.



<p><b>Clearwater County</b> Fire Services Station Location Study</p>	<p>Dan Paulsen Date: May / 2016</p>
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## 4.0 SPECIFIC FINDINGS, COMMENTS AND RECOMMENDATIONS

Clearwater Regional Fire Rescue Services was established 1999, combining the Emergency Services from Clearwater County, Town of Rocky Mountain House, and Village of Caroline. This was formalized in the 2008 Regional Fire Services Agreement. The Regional Fire Rescue Services protects Clearwater County with five stations. The fire stations are located in Nordegg, Rocky Mountain House, Leslieville, Condor, and Caroline. With these five stations, the Fire Rescue Services provide Fire Suppression, Vehicle Extrication, First Medical Response, Water Rescue, Ice Rescue, and Public Education services to the residents of Clearwater County and area. The service area of Clearwater County is 18,692 square kilometer with a 2011 census population of 12,278. Fire Stations #10 and #20 are both subject to major upgrades to meet National Fire Protection Association Standard of 1500, Occupational Health and Safety (NFPA 1500), and the Alberta Firefighter Code of Practice FEX003-07 (AFCP FEX003-07). This is a catalyst to the proposal to combine the two stations at a suitable site that will maintain the existing service level and possibly enhance the service capacity with surrounding target hazards and communities.

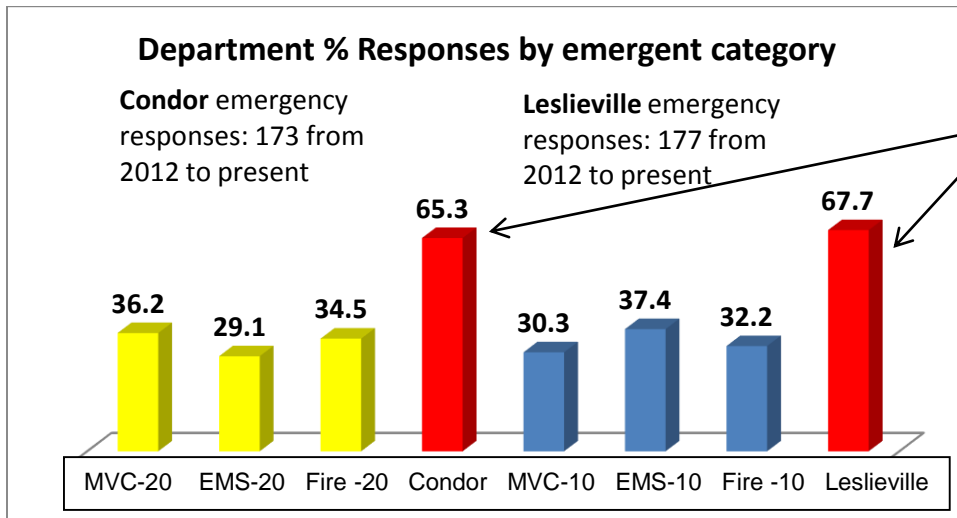
These two stations are located approximately 12 kilometers apart following the route of Highway 11 and 761 and co-respond to all alarms within their district. The identified equipment per station is listed in the table below.

<p><b><u>Fire Station 10 - 106-2nd Ave., Leslieville</u></b> 1998 Freightliner FL80 / Superior pumper (1050/1000/50F) (SN#SE 1842) 2002 Freightliner FL70 / Phoenix Emergency tanker (180/1750) 2006 Ford F550 / Superior light rescue</p>	<p><b><u>Fire Station 20 - Condor</u></b> 2002 Freightliner FL70 / Superior wildland pumper (500/500) (SN#SE 2816) 2006 Freightliner M2 106 / Superior tanker (250/1750) (SN#SE 3627) 2008 Ford F550 crew cab pickup special operations 2012 Polaris Ranger 6X6/all-terrain firefighting and rescue</p>
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Table 1

Data collected from Rocky Mountain Central headquarters on the Stations of #10 Leslieville and #20 Condor was evaluated and considered only on an emergency response basis. Any data that was either erroneous or incomplete was discarded. All incident locations that were reported with varied travel times were averaged to give a reasonable predicted travel time for analysis.





The red bar is a total of the number of responses that would be EMS in nature though vehicle extrication is considered a technical rescue specialty.

Table 2

Figure 2 outlines data that is consistent with the fact that the stations co-respond to alarms and the slight variance is a result of incomplete record keeping. Whether paid or composite, for departments that provide Emergency Medical Services (EMS), this is typically 75% of the response workload.

As identified in Figure 1, best practices of NFPA 1720 for response by a volunteer service in a rural area with less than 500 people per square mile is 14 minutes. This 14 minute time frame begins with the completion of the dispatch to the arrival time at the incident. Also outlined is the minimum number of staff to respond within the identified time frame 80% of the time. This data is not available to the author and so the question of effective response force cannot be evaluated at this time. Future research of this important factor is suggested.

For incidents inside the boundaries of the hamlets:

- Leslieville had 12 calls; 9 were within 14 minutes or 75% within 14 minutes
- Condor had 18 calls; 10 were within 14 minutes or 55%.

For overall response to incidents within the district:

- Leslieville had 64 of the 177 responses under 14 minutes equating to 36%
- Condor had 66 of 173 responses under 14 minutes equating to 38%

Summarizing the emergency response data and removing null responses (either voids or zero inputs) we find that Leslieville had an average response to emergency incidents of 17.5 minutes with Condor averaging 18.9 minutes. It must be noted the average is the chute time starting at the receipt of alarm and travel time to the incident location.

Though not a part of the NFPA 1720 requisite on department response, dispatch is another point of efficiency that could to be considered; the data supplied indicates this is a varied and inconsistent resource.

As outlined in NFPA 1221 section A.9.3.1.3:

*“The communications center should have the ability to monitor all radio communication including those communications on tactical radio communications channels, where practical. The AHJ should carefully evaluate the various communication solution alternatives available, providing the incident commanders with the appropriate mix of communications capabilities to address their specific scenarios ranging from a small rural residence to a mammoth concrete and steel structure in an urban downtown area. The AHJ should provide a simplex radio communications channel for use in locations outside the coverage area of any installed radio infrastructure”.*

Discussions with the CRFRS staff indicate there are no “dead spots” of communication in the Condor / Leslieville area that might influence station placement.

According to a recent release, NFPA revised the total dispatch transaction time to within 90 seconds, 90% of the time and within 120 seconds, 99%. (The former blanket for transaction time was 60-second dispatch 90% of the time). The revision affects six categories of calls (as listed in Section 7.4.2.2), including calls requiring Emergency Medical Dispatcher questioning and pre-arrival medical instructions. Total dispatch transaction time takes into account receipt/pick-up of initial 9-1-1 call, caller interrogation, determinant prioritization/selection, and tone out of resources. The revision went into effect in 2013 and remains in effect for at least three years, until the next edition in 2016.

Based on the data provided, the dispatch for Leslieville met the 120 second standard 33% of the time(53 out of 159 incidents).

Quantitative analysis depends on valid and consistent data. In review of the supplied data from both Condor and Leslieville, there are a number of subjective entries like zero based inputs or widely varied input times.

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Some examples would be:

Hamlet of Leslieville	Travel time #1	Travel time #2
117 2 <sup>nd</sup> Ave	09:45	02:00
141 1 <sup>st</sup> Ave	0:36 sec	05:49
302 2 <sup>nd</sup> Str	17:49	1:44
53044A TWP 40-2	03:00	15:00

Table 3

Hamlet of Condor	Travel time #1	Travel time #2
226 7 <sup>th</sup> Ave	10:00	1:35
382027 RGE RD 4-2	9:03	34:06
390005 HWY 761	1:00	37:54
391011 RGE RD 4-5	3:22	15:32

Table 4

In discussions with the administration of the Regional Fire Service Administration and the GIS contractor, it was agreed to use averaging of the travel times in order to establish a geocoded address as it relates to a travel time. This formed the basis of the response mapping. If two of the time stamp fields were empty, the data was considered invalid.

Not only is time a factor in the ability to mitigate incident due to fire growth, but the influence of time is also evident in the ability to control the fire with the water and manpower available. As seen in the table below and outlined in a 2014 article Prepared by Matthew E. Benfer and Joseph L. Scheffey Hughes Associates, Inc for the NFPA titled "Evaluation of Fire Flow Methodologies"

The effect of total response time on the water used at a fire scene

Total response time (min)	Number of events	. Range of water used in suppression activities(gal)	Average (gal)
5 to 10	18	100–4500	<b>1412</b>
10 to 15	7	280–11000	<b>2522</b>
> 15	3	1750–41000	<b>19417</b>

Table 5

Due to the extended fire response times as indicated by the data, it is evident that the water requirements for control and extinguishment of structural firefighting is potentially 10 fold that of what NFPA considers as response time standard. Effective response force would also be part of the consideration in the analysis of service level.

The water supply within the Leslieville / Condor response area:

- at the Condor station there is a 3500 gallon refill reservoir with a water well supplied resource that will deliver 50gpm.

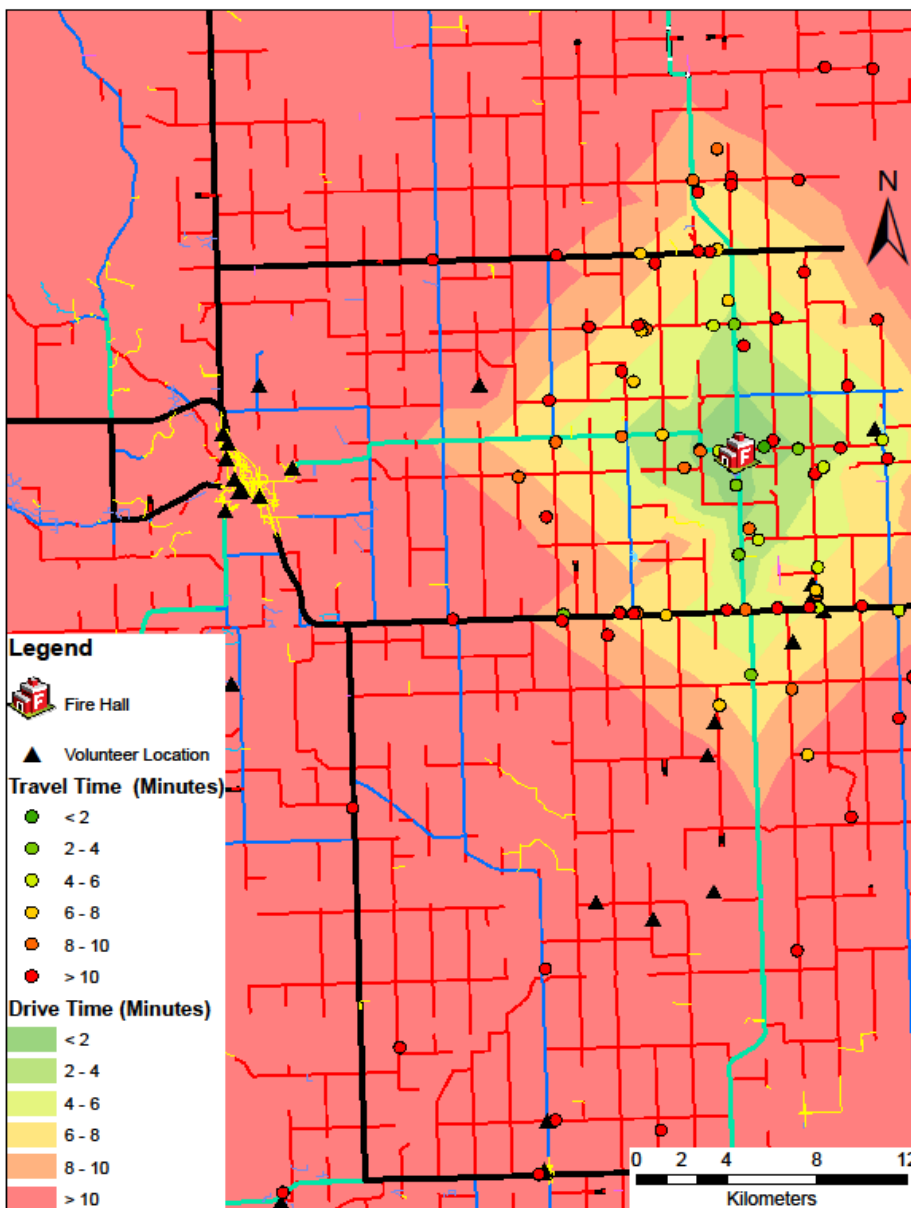


- Leslieville has a 2000 gal capacity and refill rate is yet to be established. There is also a buried 12,000 gallon tank that needs external refilling located off TWP 598 north of the Hamlet of Alahambra. The remainder of the water supply is surface based but, at present, not formally pre-planned as to location and volume.

In Appendix D, provincially supplied mapping reflects the present state of ground water in the Red Deer/Clearwater area. The mapping indicates low vulnerability within the North Saskatchewan Basin and medium vulnerability with the South Saskatchewan Basin. Part of the long term plan of CRFRS is to inspect and inventory available water resources for emergency use within the county response area. Much of the present water supply depends on water tender support from CRFRS apparatus or firsthand knowledge of topography.

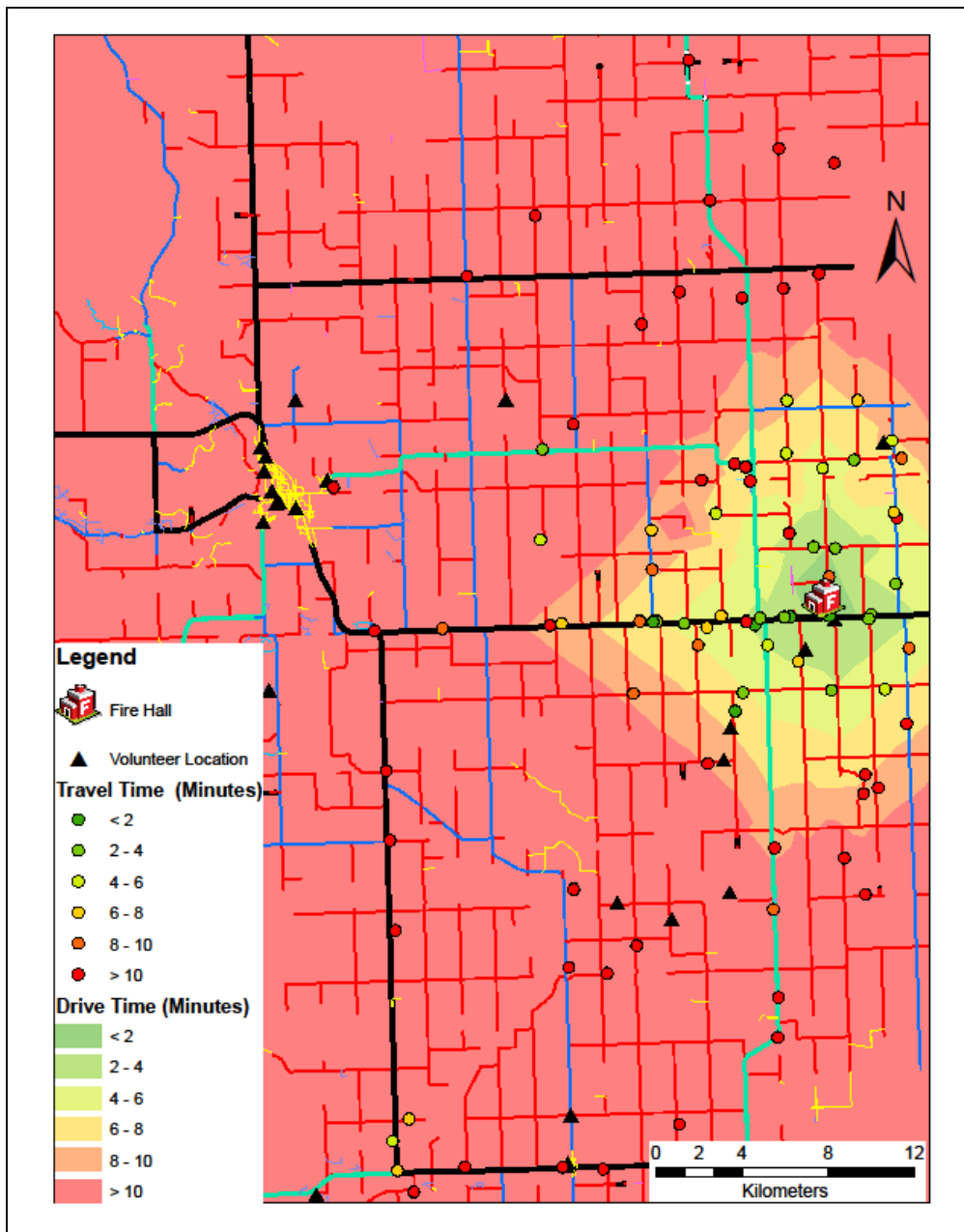
**Present Station Location and Response GIS Mapping**

From the current location of Leslieville Station, responses attended, 2013 to present.



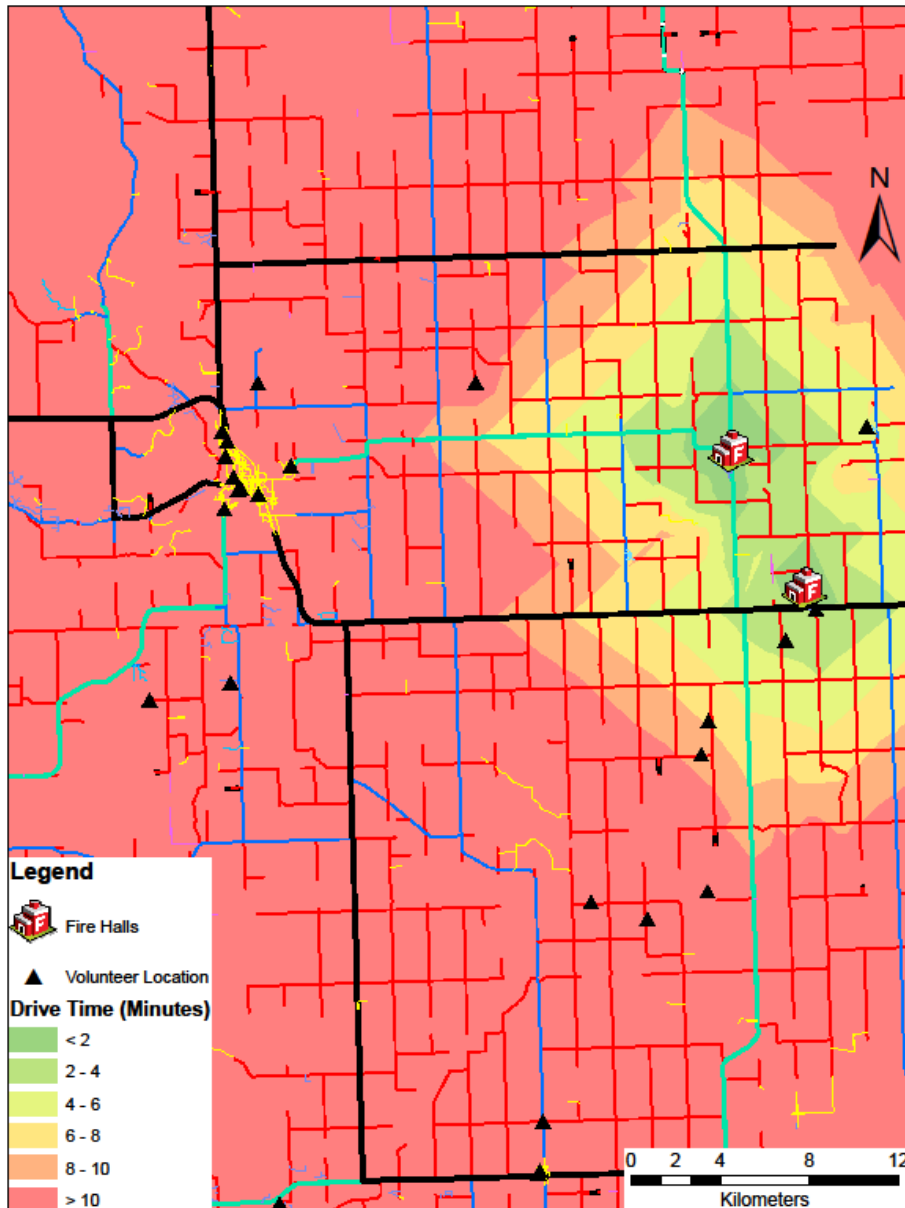
Leslieville Station

From the current location of the Condor Station, responses attended, 2013 to present



Condor Station

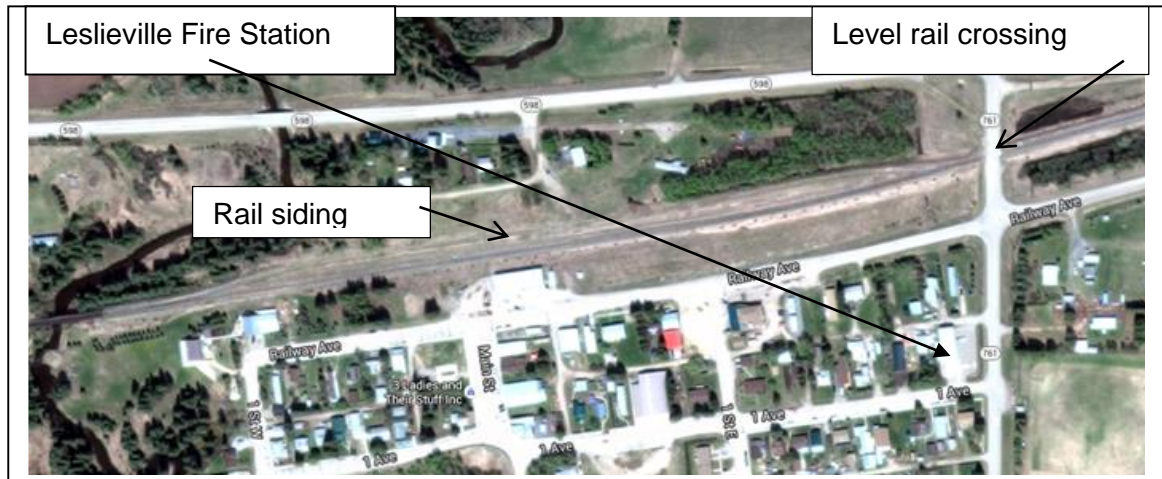
The GIS mapping below indicates travel time based on the posted road speeds of the area. Though road conditions vary with the season and infra-structure capacity to keep roads passable, there is a high correlation between predicated and actual response times. There is considerable overlap in coverage with the two stations located at present (for comparison, in urban settings, stations should be located with minimum overlap to meet council mandate).





## Recommendations

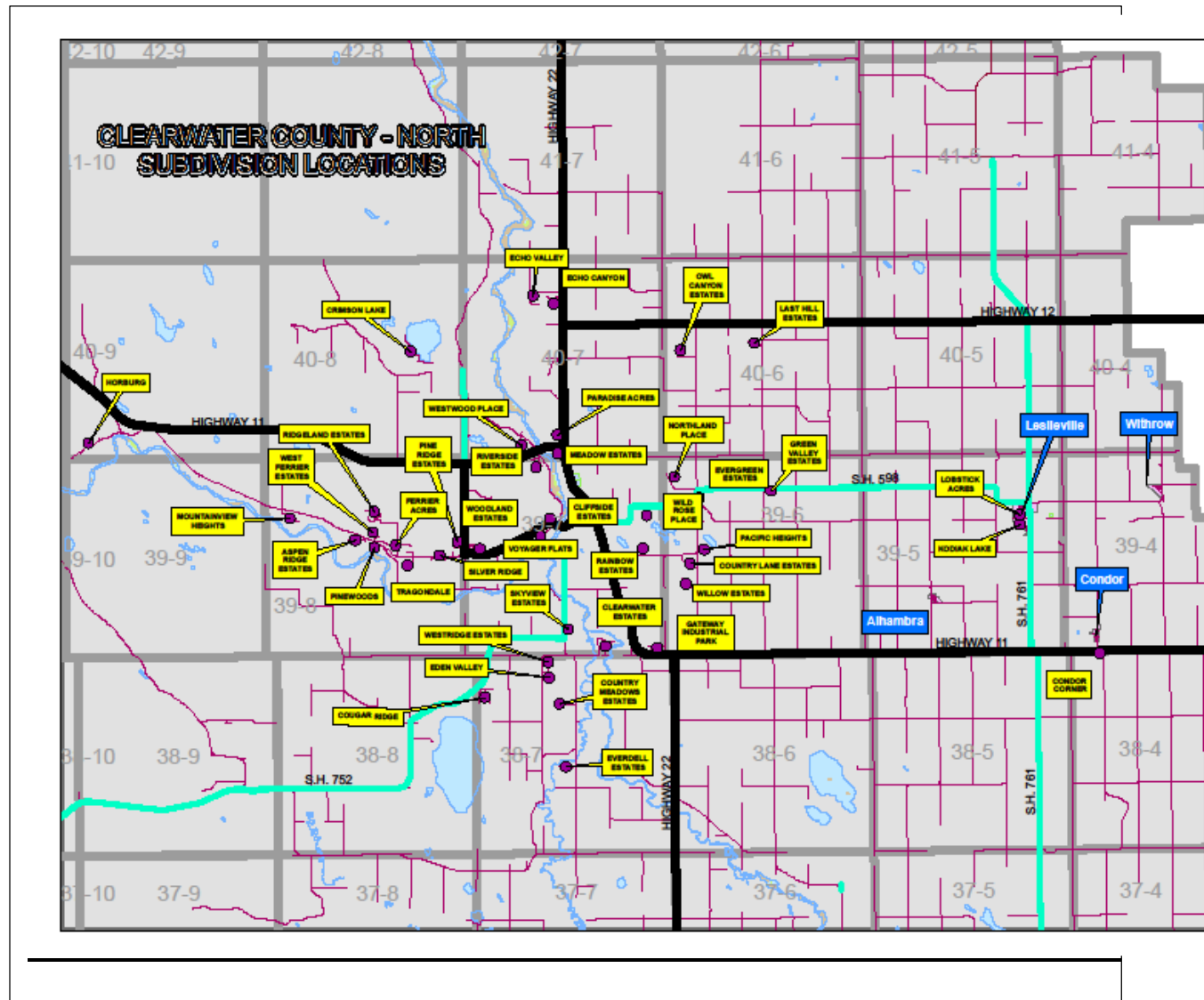
- 1) Both the stations of Condor and Leslieville require substantial upgrades to meet the requirements of FEX 003 Occupational Health and Safety Standards.
- 2) The location of the station in Condor poses no obvious concerns. The location of the station within the Hamlet of Leslieville is of concern with a major target hazard of the CN rail and siding located adjacent to the north of the building.

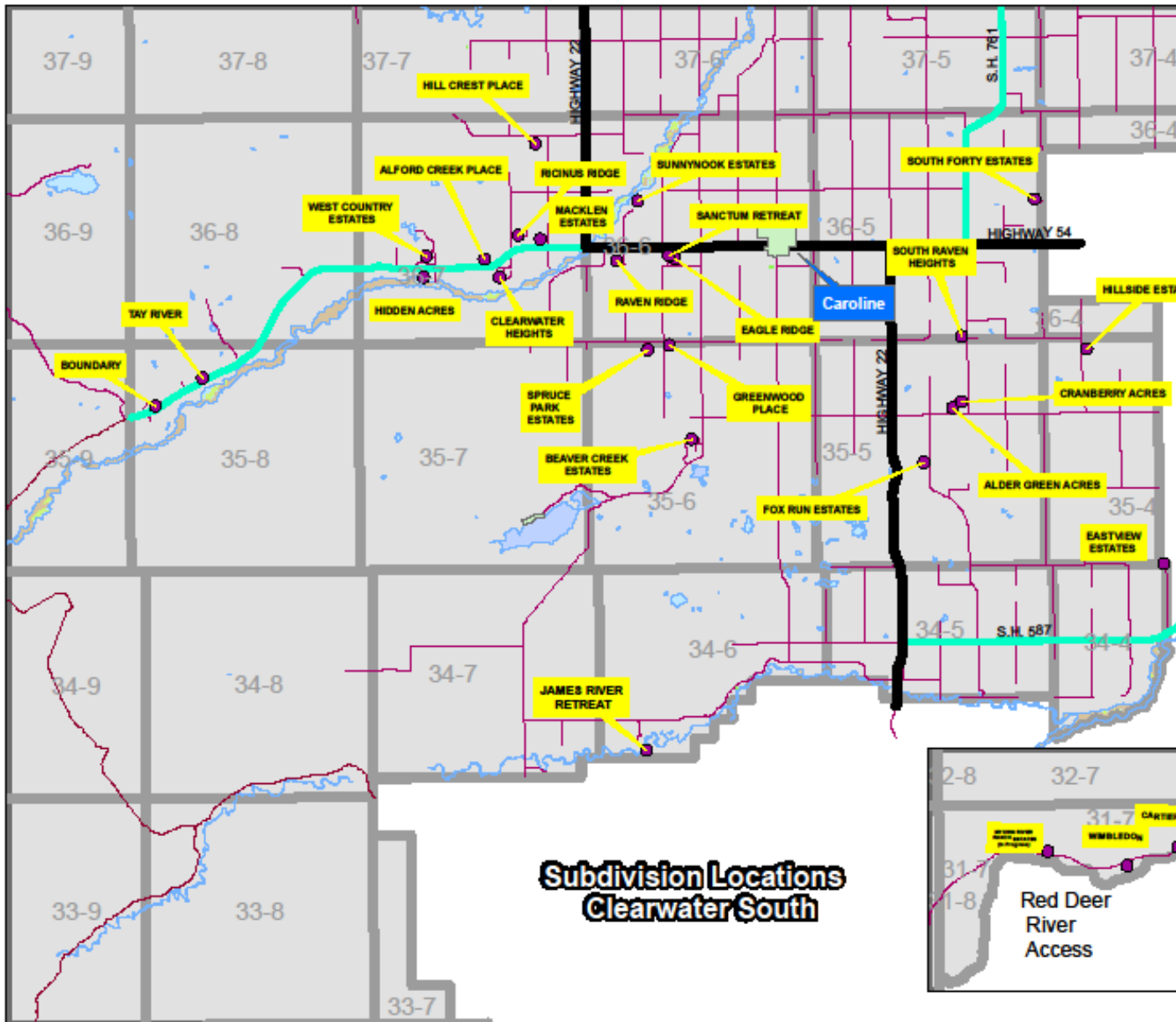


DOT 111 Tank cars parked on the siding in Leslieville. Average car can contain 30,000 gallons of crude oil or cars with manifest loads that carry a variety of product. Though rail has a very high safety record, placing response apparatus in proximity is typically not a recommended configuration.



Hazards and sub-division developments, both north and south of Highway 11 were identified and considered in the station location proposals. As the following two maps indicate, the majority of development is west of the two hamlets with the remainder in the area of Caroline.



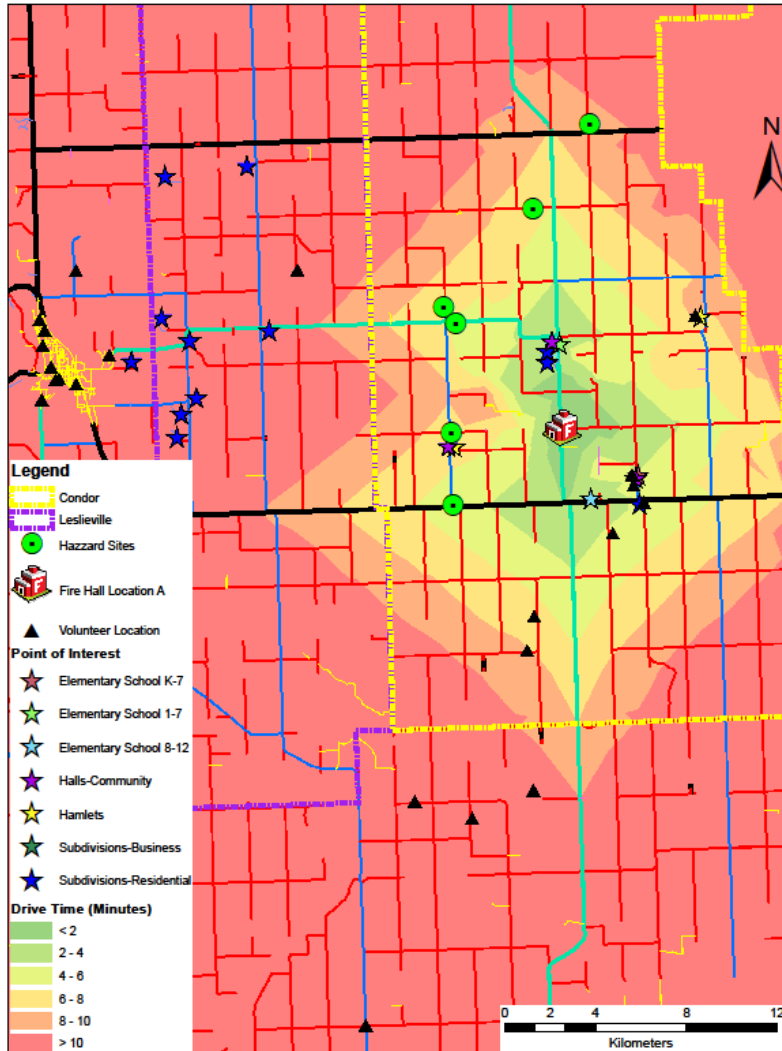


**Subdivision Locations  
Clearwater South**



### Station location option #1:

A location that has access to Hwy 761 and Township Rd 392 intersection.

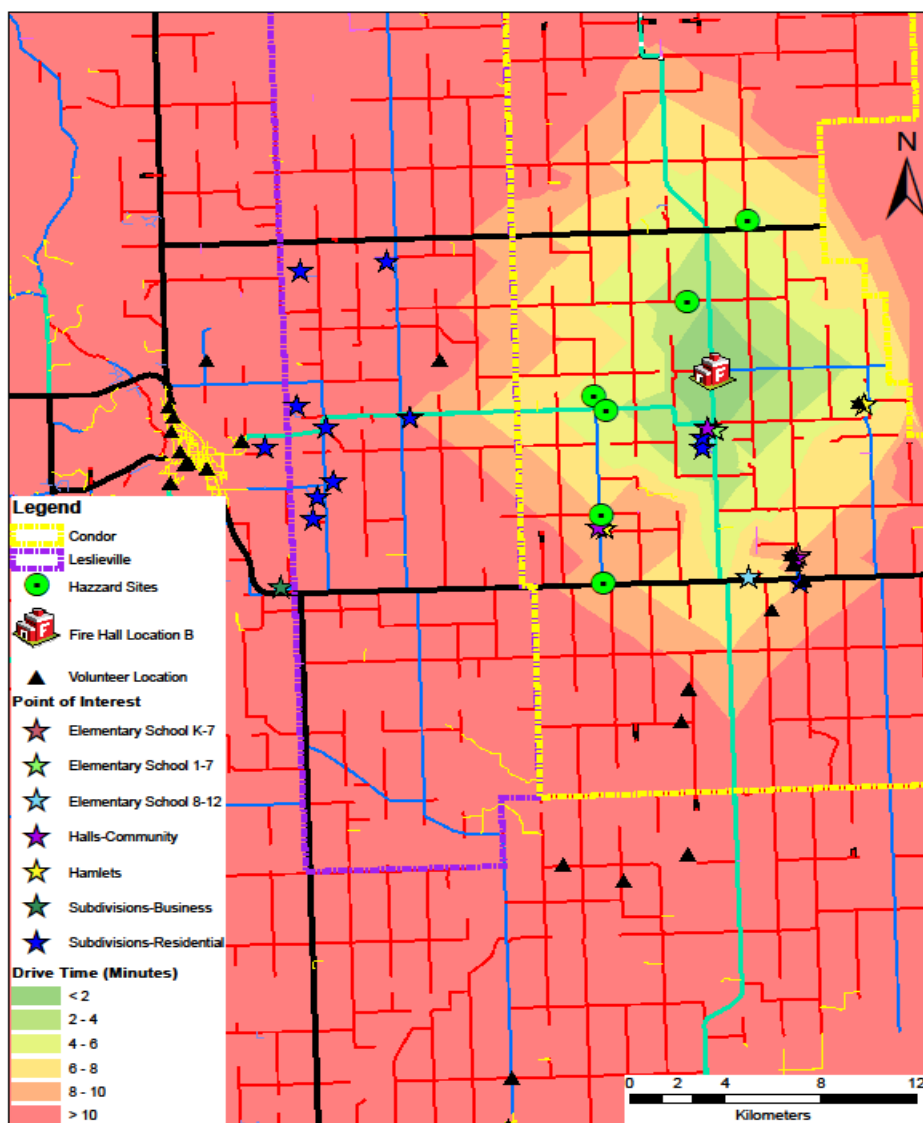


A land area of 5 – 7 acres would accommodate training and apparatus maneuvering. The site selected must have good grade access and sight lines that are not impeded by hills. This location is equidistant from the two hamlets of Condor and Leslieville. The thermograph footprint indicates that response coverage would be impacted minimally. When viewing the response matrix for the two stations, motor vehicle collisions along Highway 11 would still be adequately covered. . (See the Condor/Leslieville mapping).

There are 6 (six) identified sites to the west and northwest of Leslieville as indicated by the green dot ●. Loss of this type of occupancy can impact the economic viability of a community. Both communities will have facilities that are gathering places and essential to their vitality. Also identified are twelve developments in the North Subdivision Locations map that are all west of Highway 761. Council determines the relative importance of frequency versus severity.

**Station location option #2:**

North of the intersection of Highways 761 and TWP Rd 598.

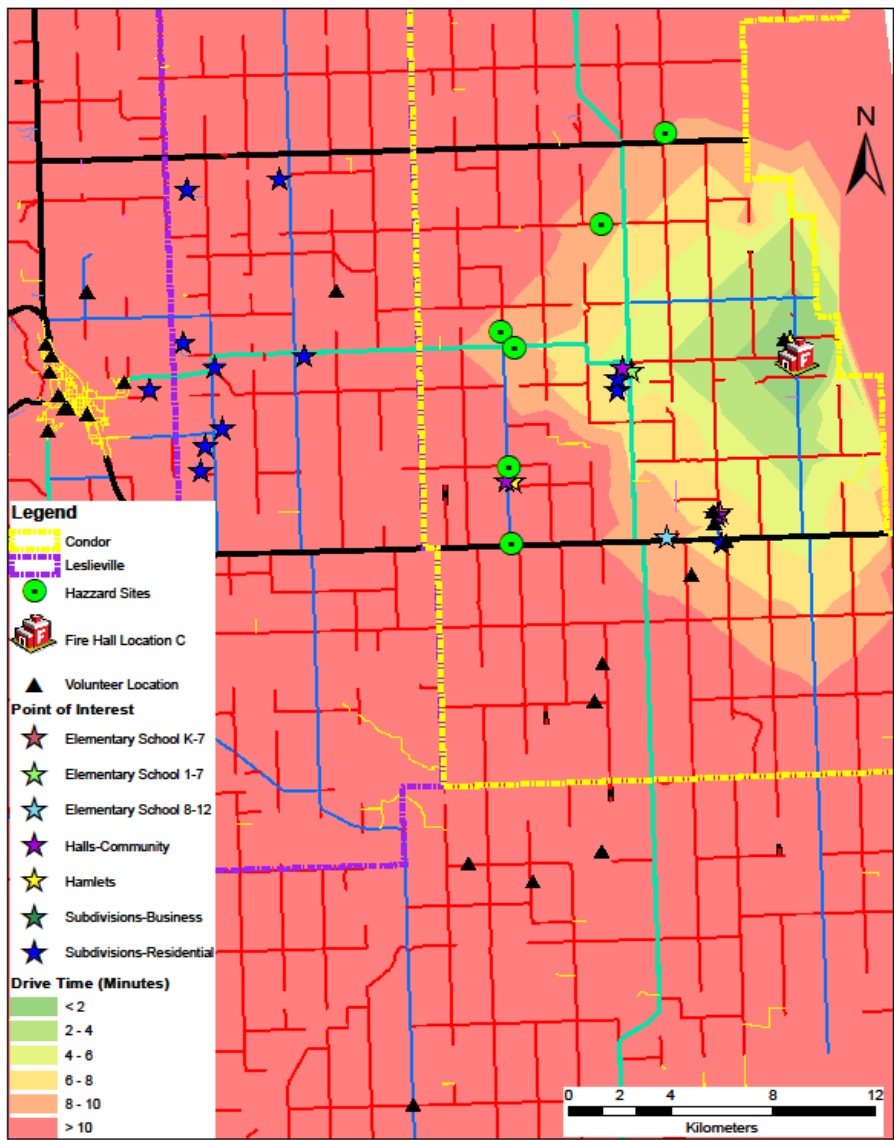


This location would have to be far enough down Highway 761 so as not to be impacted by the rail crossing and siding. This would provide better coverage for the area toward Highway 12 and a route down Highway 598 to the identified target hazards and the subdivisions. At present, there is significant travel time to the Northeast quadrant with no station location in the vicinity.

The key downsides of this proposal are that the station would be located on the north side of the rail line. A train crossing the highway would cut off service to both hamlets. It will also lengthen the runs into the area south of Highway # 11 towards Caroline and the high frequency area of Highway #11. Another issue is this placement will put the station further away from Condor so it would be greater than 5km in travel distance and also impact the overall 8km requisite by FUS for the responders' travel distance (addresses of a number of the volunteers fall outside the 8km boundary).

**Station location option #3:**

Between Leslieville and the community of Withrow (located 7.3km east of Leslieville)



This portion of township road 598 is not a primary paved road. It would move the station close enough to the Hamlet of Withrow to comply with the 5 kilometer FUS specifications but would have the same impact on reducing the service levels to the south and the identified subdivision developments to the west of 761.



Options number one through three require the closure of the current fire stations in both Condor and Leslieville. Previous studies and the recent inspection by the consultant verify that the present structures will require significant upgrades to meet Provincial OH&S standards. After further assessment, the County may decide that these buildings can be repurposed for other use by the community.

Options four through six suggest either upgrading both existing stations to meet FEX003 standards or selection of one existing site to be decommissioned and the other to be refurbished to standards. As seen in the response coverage mapping there is a great deal of overlap in the service coverage of these two stations.

### Summary of Proposed Options

Option	Location	Commentary
#1	<b>Station location option #1</b> a co-located station in the area of intersection of Highway 761 and TWP Rd 392.	This site is almost equidistant from both the communities of Condor and Leslieville. The GIS mapping shows that the response footprint would change minimally. Both centers would be within 5km of the station and coverage to the target hazards would be similar based on the present response times. The final site selection should consider road grade and sight lines
#2	<b>Station location option #2</b> a co-located station north of the intersection of Hwy 761 and TWP Rd 598.	This location is closer to the Leslieville community and able to better service the areas to the west along 598 and the north. Condor and south would begin to see a reduction in service as indicated by the mapping
#3	<b>Station location option #3</b> a co-	The only advantage to this site is that it

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	<p>located station east towards the Hamlet of Withrow on TWP Rd 598.</p>	<p>would enhance the coverage to Withrow, but be a deficit to Condor and all the identified targets to the west of Leslieville and the high frequency of Hwy 11.</p>
#4	<p>Leave the existing stations in Condor and Leslieville</p>	<p>If the station were to be left in their present location significant resources would have to be invested to meet FEX-003. Neither site has room for a formal training ground.</p>
#5	<p>Upgrade the station in the Hamlet of Leslieville and close the station in Condor. This could also include moving to a new site in Leslieville away from the rail line.</p>	<p>With the scope of community, target hazards and the north sub-division proximity this site would be more centrally located but disadvantage Condor</p>
#6	<p>Upgrade the site location in Condor and close the station in Leslieville. This would maintain the present level of service south to Hwy 11.</p>	<p>The high frequency area of Hwy 11 with MVC's would see the same level of service and closer support to the area north of Caroline. Leslieville and north would see a decrease in service capacity</p>

On April 19<sup>th</sup>, 2016 there was a meeting with the fire members of primarily the stations of Condor and Leslieville. As this is a regional impact there were representatives present from each of the other stations. After presentation and discussion it was a unanimous to move the project forward.

The same presentation was given to the citizens of Condor and Leslieville on May 4<sup>th</sup>, 2016 with similar results. The primary concern was that of changes in insurance rates for some of the rural residents as the distances from the existing sites will change. The consensus was to move this opportunity forward as delivered.



## 5.0 SUMMARY AND NEXT STEPS

The consultant followed the prescribed Methodology described in section 3.0 of this document. Analysis of data supplied by the County, gathered in interviews with fire administration and observed by onsite inspection provides the basis for six options for Clearwater County Council to consider in its deliberations.

These options include upgrades to existing structures at Leslieville and Condor or co-location at a new site. GIS mapping has shown that any of the six options will result in minimal or no service level change based on the data provided.

Consultation was held with both the Fire Service members of the Condor and Leslieville stations along with an evening public meeting with citizens from the Hamlets of Condor and Leslieville. It was stated at these meetings there is a possibility that some of the rural residents may experience an increase in their insurance with the movement of the two stations to a co-located site.

Based on the positive comments from both of the consultative events it now rests with County Council on the future steps of the process whether to proceed with the co-location suggestions.

Future considerations include evaluation of service levels into the Northeast quadrant of Clearwater County.

It is recommended that an assessment of signage, lighting, sight lines and merge capacity of township roads accessing Highway 11 be undertaken with the goal of reducing the frequency of motor vehicle accidents that constitute the majority of demand on this fire service.

On behalf of ERM, thank you for this opportunity to provide input to Council on the future of Clearwater Regional Fire Service.

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**APPENDIX A**

Content	Compliance Y = Yes / n = no	Plan to achieve Compliance Y = Yes / n = no	Expected Compliance date	notes, Modifications, Challenges
<p><b>Organization, Operation, and deployment</b></p>				
<p>4.1 Fire suppression operations shall be organized to ensure that the fire department’s fire suppression capability includes sufficient personnel, equipment, and other resources to deploy fire suppression resources efficiently, effectively, and safely.</p>				
<p>4.1.1 AHJ promulgate the fire department’s organizational, operational, and deployment procedures by issuing written administrative regulations, standard operating procedures (SOPs), and departmental orders.</p>				
<p>4.2 Fire department participates in a process that develops a community fire and emergency medical services risk management plan.</p>				
<p><b>Staffing and deployment</b></p>				
<p>4.3.1 Fire department identifies minimum staffing requirements to ensure that a sufficient number of members are available to operate safely and effectively.</p>				
<p>4.3.2 Staffing and response time objectives for structural fire fighting, based on a low-hazard occupancy such as a 2000 ft<sup>2</sup> (186 m<sup>2</sup>), two-story, single-family home without basement and exposures and the percentage accomplishment of those objectives for reporting purposes as required in Table 4.3.2 and 4.4.2.</p>				

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<b>Content</b>	<b>Compliance</b> <b>Y = Yes / n = no</b>	<b>Plan to achieve Compliance</b> <b>Y = Yes / n = no</b>	<b>Expected Compliance date</b>	<b>notes, Modifications, Challenges</b>
4.3.3 Have the capability to safely commence an initial attack within 2 minutes 90 percent of the time upon assembling necessary resources.				
4.3.4 Personnel responding to fires and other emergencies are organized into company units or response teams and shall have required apparatus and equipment.				
<b>annual Evaluation</b>				
4.4.2.1 Fire department evaluates its level of service, deployment delivery, and response time objectives on an annual basis.				
4.4.3 Provides the AHJ with a written report, quadrennially, which shall be based on the annual evaluations required by 4.4.2.				

## **APPENDIX B**

**MINIMUM CRITERIA FOR DWELLING PROTECTION GRADE 3B** (REQUIREMENTS FOR DWELLING PROTECTION GRADE 4 ARE THE SAME AS FOR DWELLING PROTECTION GRADE 3B, HOWEVER IN SOME CASES, AN ALLOWANCE MAY BE CONSIDERED FOR DWELLING PROTECTION GRADE 4 WHERE ALL OF THE CRITERIA FOR DWELLING PROTECTION GRADE 3B HAVE BEEN MET WITH ONE EXCEPTION)

### Alternate water supply

A public municipal type water supply is no required for DPG 3B, however fire department must have adequate equipment, training and access to approved alternate water supplies to deliver standard shuttle service in accordance with NFPA 1142, "Standard on water supplies for suburban and rural firefighting". A formal plan for use of alternative water supplies must be in place and available for review detailing the alternative water supply points and characteristics to be credited, fire department access to alternative water supplies must be 24hours per day and 365 days per year. Refill capacity from alternative water supplies using drafting techniques requires a pump that has a minimum capacity of 450 LPM (100 IGPM) at 275- 415 KPA (40- 60 PSI)

### Fire department apparatus

For each fore hall with a dwelling protection grade 3B, fire apparatus must include:

A minimum of one triple combination pumper rated at not less than 3000 LPM (625 IGPM at 150 PSI), and

A minimum of one mobile water supply apparatus with:

A minimum rated water carrying capacity of 4000 L (880 I.GAL) and a permanently mounted fire pump with a minimum rated capacity of 1000 LPM at 1000 KPA (210 IGPM at 150 PSI) net pump pressure.

For full credit apparatus must be designed in accordance with:

Underwriters' laboratories of Canada (ULC) S515 Automobile Fire Fighting Apparatus, or National Fire Protection Association (NFPA) 1901 Standard for Automotive Fire Apparatus.

In addition, the combined water carrying capacity of the 2 units (noted above) must be at least 6800 litres (1500 I.Gal) total and the fire department must have a transfer system capable of supplying the pumper with water as needed. This may be accomplished by pump or dump valve to a portable tank of at least 4550 litres (1000 I.Gal) capacity.

Credid for fire apparatus will be based on evidence of reliability indicatcators including the listing of apparatus by ULC, design specifications, fire pump service test records, age, maintenance history, ETC. Apparatus is evaluated from the perspective of the capacity to provide structural fire protection

To be credited, apparatus must be stored in a suitably constructed and arranged for hall.

### Fire Force

For each fire hall with a dwelling protection grade 3B, the credited available responding fire force will include at a minimum:

- 1 Fire Chief (required to respond but not required to be on duty)
- 15 Auxiliary fire fighters scheduled to respond in addition to the number of personnel required to conduct mobile water supply shuttle operations.

### Emergency Communications

An adequate and reliable means of receiving alarms of fire and dispatching fire fighters is necessary (ex. Public fire number, pagers ETC)

### Fire Protection Service Area

The boundary of the protected area must be clearly established and registered with the Provincial Government

It should also be noted that the Public Fire Protection Classification Insurance Rates will be evaluated on:

It is important to stress that insurance rates/premiums are determined by each insurance company's underwriting plans. Note that insurers also take into consideration a number of factors including but not limited, to the following (in no particular order):

1. Location of the risk with respect to distance from recognized water supplies (hydrants, etc.), and distance from the responding fire station
2. Claims history – ex. fire, wind, hail, crime and water damage claims (as relates to policyholder and/or geographic area)
3. Independent Broker's insurance markets and their loss experience for that business demographic
4. Types of coverage such as basic fire; comprehensive "all risks"; etc.
5. Type of construction; exposures; etc.
6. Types of occupancies; contents; etc.
7. Applicable policy deductible and/or policy sub-limits
8. Age of risk building and code compliance with respect to building, fire and electrical codes
9. Alarm systems
10. Specialized content coverage ex. fine arts, scheduled articles, jewellery, etc.
11. Loss Control inspection findings
12. Exposures to natural hazards such as earthquake, wind, snow and flood

### 13. Prevailing property insurance market conditions

#### **NFPA 1901 Standard for Automotive Fire Apparatus (2003)**

##### Chapter 19 Water Tanks

19.2.5\* All water tanks shall be provided with baffles or swash partitions to form a containment or dynamic method of water movement control.

19.2.5.1 If a containment method of baffling is used, a minimum of two transverse or longitudinal vertical baffles shall be provided.

19.2.5.1.1 There shall be a maximum distance of 48 in. (1220 mm) between any combination of tank vertical walls and baffles.

19.2.5.1.2 Each baffle shall cover at least 75 percent of the area of the plane that contains the baffle.

19.2.5.2 If a dynamic method of partitioning is used, the tank shall contain vertical transverse and longitudinal partitions.

19.2.5.2.1 The vertical partitions shall be secured to the top and bottom of the tank.

19.2.5.2.2 The longitudinal partitions shall extend a minimum of 75 percent of the tank length.

19.2.5.2.3 The partitions shall be arranged in such a manner that the vertical plane of each partition shall create cells for which no dimension shall exceed 48 in. (1220 mm).

A.19.2.5 The design of a water tank can be a critical factor in the handling characteristics of fire apparatus. If water is free to travel either longitudinally or laterally in a tank, as would be the case if the tank were half full, a tremendous amount of inertia can be built up that will tend to force the fire apparatus in the direction the water has been traveling. When the water reaches the end of the tank, this sudden application of force can throw the fire apparatus out of control and has been known to cause fire apparatus to turn over or skid when going around a curve or coming to a sudden stop. The only methods for preventing such accidents are to restrict or disrupt the movement of the water so that the inertia will not build up in one direction. This is done with the installation of swash partitions to either contain the water in smaller spaces within the tank (containment method) or disrupt its momentum by changing its direction of motion (dynamic method). The partitions in a containment system create compartments that are interconnected by openings between them so that air and water can flow at the specified rate when filling and emptying the tank. The partitions in a dynamic system are often staggered in an

arrangement designed to change the direction of the water and turn it into a turbulent motion that absorbs much of its own energy.

### **Fire Underwriters Survey > The Grading Schedule**

#### Canadian Fire Insurance Grading Index

Research conducted by the Investigation and Loss Bureau and the Canadian Fire Underwriters Association' was utilized to develop the original "Standard Schedule for Grading Cities and Towns with Reference to their Fire Defenses". This standard provided the original scientific methodology of measuring public fire defenses and prevalent fire risk.

While the document has been modified over the years to keep pace with the changing character of communities and the advances in public fire protection, it continues to be used today to grade communities. In Canada, the document has evolved into the Classification Standard for Public Fire Protection (CSPFP). This Classification Standard considers the level of fire risk present within the community as compared to the adequacy of water supplies, fire departments, fire service communications, fire safety and prevention codes and other aspects of a community's fire defenses that have a significant influence on minimizing damage once a fire has occurred.

The Classification Standard for Public Fire Protection incorporates nationally recognized standards such as those published by the National Research Council's Institute for Research in Construction (IRC); National Fire Protection Association, and the American Water Works Association.

Using the Classification Standard, the FUS Certified Fire Protection Specialists assign two classifications to communities with organized fire protection:

Public Fire Protection Classification (PFPC<sup>TM</sup>), for Commercial Lines Insurers  
 Dwelling Protection Grade (DPG<sup>TM</sup>), for Personal Lines Insurers

### **Fire Underwriters Survey > Superior Tanker Shuttle**

Alternative water supplies include water supplies other than those that are defined as pressurized, municipal-type water supply systems. Generally speaking fire fighting operations are dependent on water and/or other extinguishing agents to succeed. In developed areas, water supplies are provided through a network of distribution pipes, storage and pumping facilities.

In areas without municipal-type water supplies, fire fighting presents a significantly greater challenge. Historically various methods have been utilized to deliver water from some source location to the fireground. The bucket line is an example of one of the historical methods of delivering water to a fire. Generally speaking these types of water supply delivery methods were not effective with respect to reducing property damage.

Since the advent of automotive fire apparatus and road infrastructure, the capacity to move water from a source location to the fire ground has improved dramatically. The fundamental steps in a shuttle operation are as follows:

- set up pumper apparatus at fire event and deliver water from temporary storage facility (ex. portable tank) through fire pump to fire;
- draft water (from a location where water supplies are known to be reliable and accessible) into a mobile water supply apparatus
- move water from source location to fire event using mobile water supply apparatus
- dump water into temporary storage facility (ex. portable tank) at fire event location
- repeat shuttle cycle.

Levels of Service

### **Unrecognized Shuttle Service**

If the level of shuttle service provided by a community does not meet the minimum benchmarks set out in NFPA 1142, then the level of service will not be recognized for fire insurance grading purposes.

### **Standard Tanker Shuttle Service**

To be recognized, for Standard Tanker Shuttle Service, the fire department must have adequate equipment, training and continuous access to approved alternative water supplies to deliver standard tanker shuttle service in accordance with NFPA 1142, Standard on Water Supplies for Suburban and Rural Fire Fighting. A formal plan for use of alternative water supplies must be in place and available for review detailing the alternative water supply sources and characteristics. To be credited, fire department access to alternative water supplies must be 24 hours per day and 365 days per year. Refill capacity from alternative water supplies using drafting techniques requires a pump that has a minimum capacity of 450 LPM (100 lpm) at 275-415 kPa (40-60 psi).

### **Accredited Superior Tanker Shuttle Service**

Accredited Superior Tanker Shuttle Service is a recognized equivalency to hydrant protection. To be accredited, fire departments must commit to maintaining a high standard of organization,



and practice delivering the service regularly. The fire department must be able to show through testing and documentation that it can continuously provide water supplies in excess of the minimum required for hydranted municipal-type water supplies.

To be recognized for Accredited Superior Tanker Shuttle Service, the system of delivery of water supplies must be well-designed and well-documented. The system of delivery must meet all of the requirements specified for Standard Tanker Shuttle Service and must exceed the requirements in several key areas:

The fire department must be able to prove through testing that the specified requirements of Superior Tanker Shuttle Service can be met.

For personal lines insurance, the fire department must be able to deliver a flow rate of not less than 950 LPM (200 IGPM) within 5 minutes of arriving at the test site with the first major piece of apparatus (wheel stop).

For commercial lines insurance, the fire department must be able to deliver a flow rate of not less than 1900 LPM (400 IGPM) within 5 minutes of arriving at the test site with the first major piece of apparatus (wheel stop).

The fire department must be able to deliver the flow rate which will be accredited within 10 minutes of arriving at the test site with the first major piece of apparatus (wheel stop).

The volume of water available for fire fighting must be adequate to sustain the accredited flow rate for a duration in accordance with the Fire Underwriters Survey Water Supplies for Public Fire Protection

Further Notes

**To be recognized for fire insurance grading purposes, the protected property must be located within:**

**Commercial Lines (PFPC) - 5 km of a fire station AND 2.5 km of an approved water supply point**

**Personal Lines (DPG) - 8 km of a fire station AND 5 km of an approved water supply point**

**To be recognized for fire insurance grading purposes, the water-delivery system must be available AND accessible 24 hours per day and 365 days per year;**

**To be recognized for fire insurance grading purposes, the water capacity of alternative water supply sources must be documented for a 50-year drought cycle and documentation must be available for review. Alternative evidence of reliability of supply will be considered on a case by case basis.**

Fire Underwriters Survey treats dry hydrants with suction points in the same way as it treats standard (pressurized) fire hydrants. Any property within 300 metres of a dry hydrant may be eligible for a Dwelling Protection Grade better than 3B, provided the building is within eight kilometres by road of a responding fire station, the fire department is recognized as meeting the criteria for a Dwelling Protection Grade of 3A or better and the fire department has adequate

apparatus to effectively utilize the dry hydrant through suction. Testing of the fire department's capacity to utilize the dry hydrant and documentation of the dry hydrant design and maintenance may also be required.

Fire Underwriters Survey may extend credit beyond 300 metres of a fire hydrant when the responding fire company uses large-diameter hose, if the fire department can demonstrate a standard procedure for deployment of hose and also establish a relay operation as needed.

Historical Note: Fire Underwriters Survey has completed Superior Tanker Shuttle Service Testing since 1989 when the first such test was completed in Ontario. Past systems for testing were somewhat less formal. See article: 1988 First Accreditation in Canada

Noted changes to Accredited Superior Tanker Shuttle Service

Defined coverage areas

Formalized requirements for Approved Water Supply Points

Publication of accredited flow rates to the Canadian Fire Insurance Grading Index

5 year limit on accreditation period

Formalized requirements for documentation

Formalized integration of NFPA 1142

For communities that are currently accredited to deliver Superior Tanker Shuttle Service, a phase in period of 2 years will be used to allow communities time to prepare for the re-accreditation process.

Property owners in communities with accredited Superior Tanker Shuttle Service are eligible for improved property insurance rates similar to those in communities with municipal-type water supply systems.

Fire Underwriters Survey does not set property insurance rates, however the organization is responsible for publishing the Canadian Fire Insurance Grading Index which is used by insurers across Canada to base insurance rates upon.

Fire Underwriters Survey is recognized by the Insurance Bureau of Canada as being the only organization authorised to publish fire insurance grades in Canada.

## **Appendix C**

**Establishing a Fire Department**  
Alberta Emergency Management

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**APPENDIX 5**

Basic Fire Department Equipment

## **ESTABLISHING A FIRE DEPARTMENT**

A recognized fire department should operate as an agency of local government, through a Municipality (city/district/town/village), Regional District or Improvement District.

### **Definition of a Recognized Fire Department**

A recognized fire department is a group of persons formally organized as an authorized service of a municipal or other local government having a sustainable source of funding, which could include taxation, fees for services provided, contracts, permit fees or other reliable sources of revenue which will support the cost of services provided. A minimum number of trained persons able and equipped to respond with motorized fire fighting apparatus to extinguish fires or to respond to other classes of circumstances which may occur within a designated geographical area.

### **Requirements/Considerations**

Minimum requirements for a department to meet the above proposed definition should include the following:

1. Organization – Set forth the requirements for organization under the authority of the *Municipal Government Act*. It should establish requirements for the establishment of boundaries, provision of funding and for the formal appointment of a fire chief by the involved local government body.
2. Membership – Establish adequate staffing levels for a recognized fire department.
3. Training – Establish minimum training levels including required frequency of training and maintenance of training records.
4. Fire Fighting Apparatus – Specify apparatus standards and requirements to comply to ULC S515 and reference NFPA or equivalent standards for fire fighter safety.
5. Fire apparatus equipment – Outline minimum equipment requirements pursuant to ULC S515, and local needs and operating conditions.

6. Fire Station – Set forth the requirement for a well designed and located fire station to serve the department and the community.
7. Alarm Notification – Require a reliable means of providing for 24 hour receipt of alarms and the immediate notification of fire fighters required to respond to these alarms.
8. Water Supply – Require that a fire department has an adequate water supply for fire suppression purposes.

### Society Act

The other alternative would be to form an association incorporated under the *Society Act*, RSA 1980. The disadvantage with this method is that the department could not meet the definition of a “recognized” fire department as it would not have local government involvement or a sustainable source of funding such as taxation, fees for services provided, contracts, permit fees or other reliable sources of revenue which will support the cost of services provided.

It is important that fire departments be organized in accordance with the laws of the province to protect the members in matters of legal responsibility. The first step therefore should be to contact any existing local government bodies providing services in the community to solicit their support in the review and establishment process.

Where fire service is being considered inside a municipality, this service would have to be undertaken as a municipal service. When fire protection is being considered outside a municipality, this type of service request would generally be unwilling to provide this service, then this service could be undertaken as an Improvement District service (either as a new service or a new Improvement District.)

- A by-law providing for the establishment, organization and regulation of a fire department within a municipality must be made up in accordance with the *Municipal Government Act*, Part 2, Section 7, Division 1.

The following steps should be undertaken in order to support a request for fire protection service establishment as a Municipal, Regional District or Improvement District responsibility:

1. Carry out an “economic and technical” feasibility study.

- This should be done as a joint exercise between the organizing committee and the local government jurisdiction being asked to take on the service.

- This generally takes the form of a Fire Protection Survey. Assistance can be obtained from the Fire Commissioner's Office.

2. Obtain the necessary "approvals".

- The following approvals will be necessary in order for the fire protection service to become a reality:

a. Elector approval

- those expected to benefit and pay

b. Local Government

- Municipal Council or Regional District/Improvement District Board

3. Put the service in operation.

Once the fire protection service has been established as a local government responsibility, the respective elected bodies will be required to pass or adopt a bylaw for the establishment, organization and regulation of a fire department within their jurisdiction as required by the *Municipal Government Act*.

A sample bylaw has been included as **Appendix 1**.

The following should be taken into consideration when considering a bylaw:

1. The existing size of your community
2. The anticipated size of your community 5 –10 years down the road
3. The type of industrial and commercial occupancy – sawmill, bulk plants, airports, etc.

### Elected Local Officials – Fire Chief Relations

Modern day Councils and Boards (Regional district or Improvement District) as a result of public pressure over increasing taxes and debt, are becoming



increasingly more interested in the specifics of service operations (including fire protection).

This trend may result in the following advantages or disadvantages to the appointed officers (including the fire chief).

### *Advantages*

- A better informed group of elected officials.
- An established line of communications between the “policy makers (elected officials)” and the “policy implementer (appointed officers)”.
- A better understanding of community (local government) priorities.

### *Disadvantages*

- An increased demand for information to be provided by the appointed officers.
- A perceived loss of authority or responsibility, by the appointed officers

If the fire protection service is to be provided efficiently and effectively, there must be dialogue and trust between the elected officials and the appointed officers. Both parties have a role to play in finding the basis for consensus and compromise. The elected officials have to balance the priorities of all the services provided to taxpayers. The Fire Chief must be prepared to document and promote the needs of the Fire Service and to function within the limit of resources provided.

The challenge for the Fire Chief is to develop and operate a fire department capable of providing a level of service which is acceptable to: the public it serves, the public officials it reports to, and those who operate the service (particularly the Fire Chief).

### **Guidelines for the Fire Chief:**

- Leave policy-making to the elected officials but understand your role in its development.
- Develop established (documented) lines of communication between yourself and the elected officials to deal with all matters involving both groups.
- Be prepared to support your position on all service related issues in the form of reports.

- Understand the roles of elected body (Council or Board) and yourself before taking on the position.
- Be accessible.
- Be professional.
- Remember the public and elected officials are always right (it's just a matter of how right).

### Major Items to be Considered

Major items which must be considered when forming a volunteer fire department are:

1. Fire Apparatus – must be compatible with water sources
2. Fire Fighting Equipment – including personal equipment
3. Fire Station – location and design
4. Staffing – as many members as possible – a minimum of 15 is recommended
5. Communication System
  - from the public to the fire department
  - from the fire department to the fire fighter
  - between fire fighters
  - between mutual aid agencies
6. Water Supplies – hydrants, standpipes, lakes, streams and other man made sources, reliability and quantity
7. Private Property – the ability of a fire department to enter onto private property to extinguish a fire which is endangering surrounding property or buildings
8. Mutual Aid – legal agreements under Part 2, Division 1, Section 7, *Municipal Government Act* with adjacent fire departments and Alberta Sustainable Resources
9. Personal Protection – compensation for the fire fighters in the event of an accident

10. Geographical Boundaries – what areas will be included in the fire protection area; - mutual aid areas; - areas where fire protection will be required in the future.
11. Population data – the total population now, projected population in 5 years and seasonal variations
12. Physical data – the road system, topography, weather conditions,
13. Land use – total area, urban, rural, residential, wild land, grasslands, commercial, industrial, agricultural
14. Legal considerations – Workers’ Compensation Board requirements and indemnification of local government and fire department members
15. Funding – Long term capital planning in place to ensure the resources are available to finance future capital improvements and to fund the day to day operations of the department.

A basic, systematic approach should result in determining the answers to the following questions (Master Planning):

- What are the real fire problems?
- Do people know how to behave in fires?
- Do we have “high risk” groups of people in the area?
- What kind of fires have occurred, and what losses have resulted from these fires?
- What specific fire risks now exist or are expected to exist in the foreseeable future?
- Is there an increase or decrease in the population?
- What is the present economic make-up?
- What are the future growth projections, land use and zoning plans?
- What is the condition of housing?
- What is the projected industrial growth?
- What are the transportation conditions?
- What plans are in existence at community, local government (municipal, regional district or improvement district) or provincial levels which could influence the planning?

Answering these questions is hard work. Community involvement is an important element in the master planning process.

Early citizen participation and support can do much to eliminate concerns and avoid misunderstanding.

## Fire Protection System Defined

The community as a whole needs to understand what master planning is and what it is not. The people must not feel threatened by the planning process; they should feel that they are a part of it and have a say in what happens.

Planning will take a lot of work and some of the decisions will be difficult, but the results are well worth the effort.

When it is completed the master plan is presented for approval and adoption. Adoption of the plan is the final step of the planning phase; it is here that the community commits itself to the plan.

Commitment means that the level of fire protection service, and therefore the risk, is fully understood and accepted.

It also means that the cost and the resources needed to provide the protection are understood and accepted.

This is especially important where changes in current methods are to be made—for example, increased private sector participation through mandatory installation of smoke alarms, smoke detectors or sprinkler systems.

To better understand fire prevention and control as a workable system, consider the term “fire protection” as defined by the National Fire Protection Association:

***“Fire Protection.*** *The science of reducing loss of life and property by fire, including both fire prevention and fire extinguishment by public or private means. Also, the degree to which such protection is applied.”*

This definition recognizes a collection of activities (for fire prevention and for fire control) and of system elements (public and private) as being included in the idea of fire protection.

Fire protection has long been thought of as a service that is provided by a fire department in the form of fire fighters and fire engines speeding to the scene of a fire, a rescue, and automobile accident, a drowning child trapped in a well. As far

as it goes, this is an accurate view, but there is much more to fire protection than putting out fire and rescuing people.

Although not generally recognized as such, perhaps a more important part of fire protection is a system where people and equipment work together to prevent fires. For example, if there were no fire prevention oriented building codes and if people were not reasonably aware of fire danger, fire losses would be immeasurably greater and fire suppression forces would be overwhelmed.

In a typical community each of the following organizations is a part of the protection system:

**Fire Department** – Performs rescue, fire extinguishment, fire cause determination, emergency medical services, routine fire prevention activities such as inspection and code enforcement as per the Safety Codes Act.

The **Fire Chief** – may be appointed as a Safety Codes Officer to enforce the Safety Codes Act and pursuant regulations.

**Building Department** – Administers and enforces the Building Regulations of the Alberta Building Code in new construction and old construction undergoing remodeling.

**Road/Street Department** (Public Works) – Constructs, marks and maintains traffic corridors (roads, bridges, access design) for motor vehicle use, including fire apparatus. Rural property identification and numbering along with a detailed map of area to be protected.

These departments are a source for bulldozers, road graders, water tanks, and other heavy equipment useful in times of major fires.

**Law Enforcement Agencies** – Function in arson investigation, arrests, prosecution, traffic control, and other police action necessary in times of major fires.

**Water Purveyor of Water District** – Supplies and distributes water for fire protection.

**Emergency Health Services** – Administers emergency medical care and transports fire and accident victims.

**Public Schools and Community Colleges** – Sponsors public awareness programs in fire prevention and control to education children and adults.

**Planning Commission** – Determines zoning which influences the spread of fire.

**Citizens** – A personal concern and responsibility for themselves and their neighbors.

## Master Planning

Fire protection generally has not been considered as a system which can be defined, directed and controlled. Many communities have applied master planning to fire protection.

Planning is the key to adequate fire protection, but the planning must be done at the local level. Identify the community's fire situation and the factors influencing it. This is done for the present and the future.

Establish goals and objectives, determine what fire protection is needed now and what will be needed at the end of the period for which you are planning.

Communities are being challenged to control or reduce costs and yet maintain or improve – herein lies the challenge facing master planning.

## Reasons for a Community Fire Protection Plan

- to reduce life and property loss
- to improve fire protection services, especially fire prevention
- to involve non-traditional agencies and groups in fire protection
- to control fire protection expenditures
- to identify community fire protection goals
- to document current and future fire protection environment
- to document current and planned fire services
- to identify current and future fire protection resources
- to establish inter-agency fire protection policies, procedures and responsibilities
- to establish fire protection requirements in community development plans
- to evaluate innovative methods of fire protection

Community growth will have a great impact on planning. If there is a great influx of people and services into your area, there will be a need to re-assess the capital items that would be required to accommodate that growth. The following areas will require careful consideration:

- Replacement of worn out or inadequate equipment.
- The type of development, whether residential, commercial or industrial, and the implications for equipment because of taller buildings or toxic material storage or manufacture.
- Demands on staffing due to increased calls, inspections and education.
- The distance development is occurring from existing or proposed fire stations, satellite halls may be required.
- Water requirements with systems having adequate fire flows or alternate sources of water.
- Establishing guidelines with regards to accessibility, road grades, sprinklers in commercial buildings and the location of hydrants.

### Fire Protection Costs and Value

Whenever a movement is begun either to establish fire protection or to improve the existing services, voices may be raised in alarm. Often the citizens express the feeling that the proposed changes are too costly. Similar exclamations are frequently heard about the costs of maintaining the existing levels of protection.

One reason for the belief that fire protection may be too costly is that people may not understand what fire protection really is. They are not sure whether the protection they pay for is the protection they need or whether they are paying more than their fair share.

Careful planning offers the best approach toward balancing costs with fire protection needs as reflected by the thoughtful desires of local citizens. Involving citizens in the planning process provides the opportunity to inform them regarding fire protection costs, benefits and risks and thereby gain their support for implementing a fire protection system of known performance and cost.

This matter of cost and value is no small problem, but it is the basis for justifying the expense of needed fire protection.

Determining the cost and value of fire protection has been traditionally difficult. Few communities actually try to measure such things, consequently few know the true costs of operating a fire protection system. The expenses or funding an

organized fire department are regularly calculated, but they are by no means all the costs of fire protection. Here are a few of these “other” costs:

- Water distribution and maintenance costs for pipes, hydrants and plant capacity and operations used for fire protection
- Fire insurance costs
- Costs for built-in fire protection such as sprinkler systems and smoke and heat detectors
- Private fire brigade

In addition, the costs of administering building and fire codes, building permit and inspection programs, and other similarly oriented fire protection programs, must be included.

There are also benefits to these costs which are important, such as:

- Life safety, which is applicable to anyone
- Fire loss, the reduction in dollar losses to property as a result of fire
- Job loss, the reduction in the number of jobs, or the dollar value of those jobs, lost to fire
- Community tax loss, the reduction of loss of revenue to the area due to loss of property and jobs due to fire
- Fire insurance premiums, the reduction in insurance costs
- An organized body of trained individuals that can be called upon in a community emergency
- Peace of mind

### Use of Available Resources to Improve Fire Protection

Some ways fire protection can be improved, even if resources are relatively scarce, include inexpensive programs of action to raise everyone’s level of fire awareness and reduce the number of existing hazards.

In communities where public funds can be made available, you may wish to consider the value of expanding fire programs to include:

- The Fire Department objectives of preventing fires from starting; of preventing loss of life and property when a fire starts; of confining a fire to the place where it starts; and of putting out the fire.
- Public education programs designed to reach all citizens in your community through regular classroom instruction, group lectures and demonstrations.



- An active and constructive fire inspection program, coupled with the public education program, organized with the intent to remove common and not-so-common fire hazards.
- An active fire cause investigation program
- A smoke alarm installation and maintenance program
- A fire extinguisher program designed to put portable extinguishers into homes and places of business and to teach everyone how to use them.
- Encouraging the development of better water supply and distribution systems.

### ***PURCHASING FIRE APPARATUS***

Purchasing the correct apparatus that is capable of doing the best job for the least amount of money is a tremendous responsibility for fire department officers. As these vehicles involve an investment of thousands of dollars, caution must be exercised when writing specifications, evaluating bids, and awarding the contracts.

#### **Competitive Bid Purchase For New Apparatus**

Generally, purchases are made by specifying the features desired in a fire apparatus and asking for bids. This method is known as purchasing by competitive bids based on adequate specifications. It is designed to eliminate favoritism or personal influence, ensure delivery of equipment that will perform satisfactorily and provide the purchaser with maximum utility and economy.

However, such benefits are only realized through the use of proper standards, the apparatus will be no better than the specifications. Few are able to employ personnel with qualifications and ability to draw up specifications that will adequately cover all phases of construction and performance of fire apparatus.

Frequently, in attempting to draw up adequate specifications, the result becomes so excessive or restrictive in some requirements that it increases the cost unnecessarily or prohibits bidding entirely. Often important requirements are omitted and irrelevant and unduly costly provisions are included.

In order to provide uniformity and ensure basic essentials are included, this office suggests that fire apparatus be designed to ULC S515 Standard for Automobile Fire Fighting Apparatus. The specific sections to meet your needs are explained in this guide.

## Writing the Specifications

Determining exactly what type, size, and model to purchase is the first step in writing specifications for fire department apparatus.

As the department will probably be either blessed or stuck with this equipment for 20 or more years, a great amount of thought must be devoted to acquiring the best vehicle for the job.

Consideration should be given to the fire hazards, terrain, roads and highways, weather and climatic conditions, building heights and areas, water supply, fire station location, mutual aid arrangements, and every other character of the response area that this apparatus will be expected to protect.

Growth possibilities of the area should also be considered.

Higher structures and larger buildings may be constructed.

Unprotected areas may be annexed. After all of these variables are analyzed, then a definite idea can be formed of what size and type of apparatus will do the best task.

A department that has to primarily protect rural areas must be concerned about not ordering a vehicle that is too heavy for the unimproved roads.

Highly maneuverable apparatus are needed in areas with narrow and winding streets. Areas with large industrial factories may require an engine with 6800 litres per minute (1500 IGPM) capacity and a 2300 litre (500 gallon) water tank, while a rural department may be better served with a 2840 litre per minute (625 IGPM) engine with a 4500 litre (1000 gallon) water tank.

It is best to order by performance specifications as detailed in ULC S515. They allow the manufacturer greater latitude in selecting the best and most modern components and equipment for the vehicle. A deviation from this principle may be to designate a diesel engine over gasoline powered, an automatic instead of a manual transmission, a certain model of chassis because of the availability of repair facilities, or other definite preferences.

## Specification Checklist

This list of questions is designed to assist you when reviewing your specifications prior to sending them out.

Is year of chassis shown?

If gas engine, is the carburetor 2 or 4 BBL?

What size of engine?

What type of engine, gas or diesel?

What size of pump?

What type of transmission – manual or automatic?

Are rear end ratios given?

Are the springs and axles adequate for the anticipated gross vehicle weight?

Is the tire size adequate for the gross vehicle weight?

Are the tires readily available commercially?

What capacity in C.F.M. is compressor rated?

Is an electric compressor included?

Is air dryer included?

Are batteries in parallel and if dual battery system is used is cut off switch on dash?

What is fuel tank capacity?

Do West Coast Mirrors include amber lights?

What alternator amperage capacity is shown?

Is block heater included, if so what type?

Is unit equipped with back up alarm?

What gauges are listed on pump operator's panel?

Is booster tank water gauge specified?

Do compartments have full adjustable door catches?

On lower compartments are all floors raised for easier cleaning?

Are compartment door seals replaceable?

Are all ladder and suction hose brackets adjustable?

Do upper compartments have swing up doors c/w lights and gas cylinders?

Is rear step supported by 4" channel iron from main frame?

Is tank under warranty for 15 years?

If unit is equipped with transverse hose beds are rollers and spools supplied?

Does pump panel have lights?

Is unit equipped with suction hoses and screen?

Is hot water heater and fan installed behind operator's gauge panel to prevent freezing of instruments?

Does pump have auto lube system?

On pump spec sheet, is pump rated and tested to 600 p.s.i.(4100 Kpa) hydrostatically and hydrodynamically?

What type of fire fighting equipment is included on quote specs?

If booster reels are requested, are rollers, hose and nozzle included on quote specs?

Is unit lettered and painted?

Is firm delivery date shown on quote?

Are ladders and extinguishers included in spec sheet?

If unit is equipped with automatic radiator shutters, is manual override included?

On units equipped with transverse hose beds, are hose beds equipped with 1-1/2

Chicksan Swivel joints?

Does the vehicle comply with W.C.B. requirements?

### Awarding the Contract

Most governmental agencies have established policies when writing specifications, advertising for bids, and awarding the contracts for any purchase of a substantial amount. Because these are primarily legal processes, local laws play a fundamental role in the apparatus and equipment acquisition process.

If the estimated amount of the contract exceeds a certain specified sum of money, sealed bids must be solicited by public notice in the particular manner and subject to the requirements of the law.

When any agency calls for bids for the purchase of apparatus or equipment, specifications should not be prepared so as to exclude all but one type or kind, but should include competitive supplies and equipment.

Writing specifications with the intent of securing one certain model and make of apparatus is discouraged. Fire department officers occasionally are so convinced that one manufacturer builds better equipment, they will use the product's advertising specifications to write the bid specifications. This practice smothers competition.

The underlying principle of the bidding process is that the governmental body awards the contract to the best competitor meeting the terms and conditions of the bid invitation.

To determine if a bidder is truly responsible and capable of fully performing the desired services or furnishing the wanted equipment or vehicle, it is a legitimate obligation of the agency to investigate the bidders to determine that they do have the skills, abilities, and record of past performances to ensure that the specified item will be delivered at the correct time.

The low bid does not have to be accepted if it can be clearly shown that a higher priced apparatus is a better buy for the money. There are many legitimate questions that should be answered before a bid is awarded.

Only after the correct type and size of apparatus has been decided on, proper specifications written, bids solicited from a reasonable number of manufacturers and the bids are analyzed can the contract be awarded.

Supervision during construction may be required. A thorough inspection and testing period should be conducted upon delivery of the equipment or vehicle. This way the department has the certainty they have selected the apparatus that will do the best job for the best price.

### **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 many years. The Fire Underwriters Survey (F.U.S.) have addressed this question as follows:

“The public fire service is unique. It is probably the only emergency service whose 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 high standard of aesthetic care and maintenance. Truck and pump manufacturer 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 conditions for these devices.

F.U.S.’s lengthy experience in evaluating fire apparatus indicates that apparatus should be designed to an acceptable standard. We recommend Underwriter’s Laboratories of Canada, (U.L.C.) Standard S515 “Standard for Automobile Fire Fighting Apparatus.”

Fire apparatus should be built by recognized manufacturers. Fire apparatus should respond to first alarms for the first fifteen years of service. For the next five years it should be held in reserve for use at major fires or used as a replacement for out-of-service first line apparatus. Apparatus should be retired from service at twenty years of age.

Present practice indicates that the recommended service periods 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 precludes effective use for emergency service. These deficiencies may include:

- 1) inadequate braking system
- 2) slow pick-up and acceleration
- 3) structurally weakened chassis due to overloading
- 4) pump wear

Insurance Grading Recognition of Used or Rebuilt Fire Apparatus F.U.S. has modified its application of the age requirement for used or rebuilt apparatus. Due to municipal budget constraints they have continued to recognize apparatus over twenty years of age, providing the truck successfully meets the recommended annual tests.

If the apparatus does not pass the recommended tests or experiences long periods of “down time”, F.U.S. may request the municipal authority to replace the equipment with new or newer apparatus. If replacement occurs, continued fire insurance grading recognition would be ensured.

Fire Underwriters’ Survey is a national organization, financed and directed by the Insurance Bureau of Canada (I.B.C.), a national association representing 80 percent of the private sector property and casualty insurers in Canada.

## Recommended Service Tests for Used or Modified Fire Apparatus

### Introduction

The intent of this section is to ensure that all used or modified fire apparatus, equipped with a pump or used for tanker service, essentially meets the requirements of Underwriters’ Laboratories of Canada “Standard for Automobile Fire Fighting Apparatus” – S515, or subsequent current editions of the Standard. Full adherence with the following specified tests is recommended.

#### 1. Weight Tests

- 1.1 Load Balance Test: When fully laden (including a 460 kg (1,000 pounds) 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 a balance of mass on the rear axles is permissible.

## 2. Road Tests

### 2.1 Acceleration Tests:

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

For apparatus carrying in excess of 3150 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 kmh (50 mph).

2.2 Braking Test: The service brakes shall be capable of bringing the fully-laden apparatus to a complete stop from an initial speed of 30 kmh (20 mph) in a distance not exceeding 9 meters (30 ft) on a dry, hard surfaced road that is free of loose material, oil or grease.

## 3. Pump Performance Tests

3.1 Hydrostatic Test – Recent evidence of hydrostatic testing of pump for 10 minutes at a minimum pressure of 3,400 Kpa (500 p.s.i.).  
**APPLICABLE TO NEW OR REBUILT PUMPS ONLY.**

### 3.2 Priming and Suction Capability Tests

3.2.1 Vacuum Test: The pump priming device, with a capped suction at least six metres (20 ft) long, shall develop 75 Kpa (22 inches of mercury) at altitudes up to 300 metres (1,000 ft) and hold the vacuum with a drop of not in excess of 34 Kpa (10 inches of mercury) in ten minutes.

For every 300 metres (1,000 ft) of elevation, the required vacuum shall be reduced 3.4 Kpa (1 inch of mercury).

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

3.2.2 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 ft) through six metres (20 ft) of suction hose of appropriate size, in not more than 30 seconds, and not over 45 seconds for 6,000 L/min (1320 Igpm) 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 will be conducted with all discharge caps removed.

### 3.3 Pump Performance

3.3.1 Capacity Test: Consists of drafting water (preferably with a 3 metre (10 ft lift)) and pumping the rated capacity at 1,000 Kpa (150 psi) net pump pressure for a continuous period of at least one hour.

3.3.2 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 the test procedures, the following documents provide useful data:

1. Underwriters' Laboratories of Canada, Standard S515, "Standard for Automobile Fire Fighting Apparatus"
2. Fire Underwriters' Survey publication entitled "Fire Stream Tables and Testing Data"
3. International Fire Service Training Association, "Fire Department Pumping Apparatus (7<sup>th</sup> edition)
4. National Fire Protection Association (NFPA) Standards 1901, 1902, 1903, 1911.

## Replacement Purchase

It is wasteful economy for a municipality not to provide apparatus and equipment of the best and most dependable type. The largest expense for a fire department is the cost of maintenance of the fire apparatus and



equipment, self contained breathing apparatus, fire hall, licenses, insurances, heat and light.

The initial cost of apparatus which has a service life of at least 20 years is proportionally small in the overall budget.

The number of miles traveled and hours of pumping operation do not normally provide a basis for determining the need for replacement. Many other factors limit the effective and economical life of an apparatus and make replacement desirable: advancements in design of fire fighting equipment; inadequate protection for driver and fire fighters; structurally weakened chassis because of overloading; increased maintenance costs; parts replacement difficulties with old apparatus; and lack of reliability under the stress of emergency service.

Some of these drawbacks increase the dangers to the public and to fire fighters because of the increased chance of accidents.

Apparatus relieved from first-line service may be retained as reserve equipment; this should also be considered when assessing replacement costs.

Reserve funds should be in place so that a fire department is not left in the situation of shutting down because there are no funds available to continue due to broken down equipment that cannot meet the certification.

## ***FIRE STATION LOCATION AND DESIGN***

The functional worth of a fire station is established in the planning stages. In these days of high construction costs the expenditure of public funds must be carefully considered to avoid serious and costly mistakes.

The area to be protected is a determining factor in planning the location, type and size of the station – whether it be residential, urban, suburban, rural, mercantile or industrial; congested, high hazard, open, zoned or unrestricted.

The proximity of schools, hospitals, theatres or other places of public assembly; also the geographical and topographical relationship to other stations if any; existence of permanent traffic obstructions such as rail road tracks must also be taken into account.

Other fundamental considerations are the number and types of apparatus to be quartered and whether or not a chief officer or officers will be headquartered there.

Fire stations should not be located on heavily traveled roads, or one-way streets. The street should be of good width, perhaps a secondary arterial which could provide a clear fire lane across the protection area. There should be a minimum of traffic congestion in the area.

The site should be level, never on a hillside and when possible one or more rear doors provided for the apparatus room for drive-through traffic. If the station is in a residential area it should be on a sufficiently large plot to allow for attractive landscaping. In such locations it is essential to conform the design to the architecture of the locale.

The problem of locating a fire station has probably caused more debate than anything else affecting the fire service. Fire chiefs who encounter the opposition of taxpayers, real estate and other groups in selecting a site for a fire station in a residential area should be able to prove that locating a modern fire station in any residential area does not decrease property values, but tends rather to increase it.

The apparatus room is the heart of every fire station; its location, size, shape, layout and provision for easy, quick access from all areas are factors that establish good functional design. In determining size and layout the planning committee must consider both immediate and future needs of the fire fighters that may occupy the station.

Apparatus Room doors should be at least 3.6 meters (12 ft) wide and 4.3 meters (14ft) high, and when possible each piece of apparatus should have direct access to the street. Single truck stations should be at least 7.5 meters (25 ft) wide whereas multi truck stations require a minimum width of 6 meters (20 ft) per truck.

Depth is dependent upon the number of pieces of apparatus to be housed. Ample space must be provided at the front, sides and rear of apparatus to permit routine maintenance, ease of response and repacking of hose.

Apparatus room floors should be of concrete slab construction with care taken to avoid a slick finish. The floor should be pitched for adequate drainage, but not so steeply that the apparatus will roll toward the doors when the brakes are off.

Suggested ceiling height for the room is 5 meters (16 ft). Overhead, counterbalanced, electrically operated doors with controls either at the alarm room or apparatus room are recommended, however, provision should be made for manual operation in case of power failure.

Other equipment in the apparatus room should include a battery charger, water taps, cleanup tools and maintenance equipment.

Electric or gas fire hose draying equipment is now available which can effectively replace the hose tower of days gone by. Several of the advantages of this modern equipment include reduced construction costs and energy efficiency.

Fire hose washing machines along with dryers and storage racks properly belong in the apparatus area unless a special hose-servicing room is provided.

The mobile type of hose rack, equipped with locking casters and a rotating table for reloading apparatus, is very popular and offers several advantages over the old type racks which were made of pipe and wood.

The Alarm Room is the nerve center of the station, where supervision is maintained over all communications. The old time watch desk, formerly located on the apparatus floor, has given way to a separate room where all alarm communications and controls are centered.

Tack boards, bulletins, radio consoles, telephones, enunciators, speakers and all other signaling and alarm equipment should be arranged in a compact orderly manner and conveniently located.

Ready access to the concealed wiring and cables should be provided and station-wide public address system is desirable.

A minimum of two showers, two water closets, two urinals and two wash basins should be provided for the male personnel and the equivalent for the female personnel.

The electrical system should be surveyed and determined by a qualified electrical engineer. There should be plenty of service outlets for cooking, air conditioning, radio, television, battery charges, electric portable tools, projection and sound equipment, etc.

Fluorescent lighting fixtures are recommended in all areas with possible exceptions of closets, storage rooms and basements. Exterior floodlights are advisable for drives and parking areas.

Ample window, providing plenty of daylight, eases the demand on lighting circuits.

A clean, soundproof room dedicated to self-contained breathing apparatus air filling can be incorporated into the design. The compressor and air bank can be located for easy access. All breathing air must comply with WCB Regulation 14.25.

A well-equipped lecture and reading room with good chairs, convenient tables, television, VCR, radio, and a library with books and subscriptions to leading Fire Trade periodicals is desirable.

While the requirements considered above are common to both volunteer and paid departments, there are some differences in station design. Because the volunteer station may be used for other functions, they are equipped with kitchens, sometimes meeting rooms which can be divided into several smaller rooms as the occasions require by means of folding partitions. A separate entrance will help alleviate traffic through the fire station.

Because the fire protection needs of jurisdictions are always changing, a fire station which is adequate today may require extensive expansion or modification in just a few years. It is necessary for local fire stations to be designed and constructed to accommodate anticipated changes to their staff, equipment and services.

Only when they have been designed for flexibility and adaptability to change can these essential facilities expand and adjust to meet new demands with the cost effective alterations.

There are many fire stations located within each region. It would be wise for any department contemplating a new station to look at other existing stations. Other fire departments can state what they like and don't like about their own fire station.

## **ORGANIZATIONS**

Office of the Fire Commissioner

The goal of the Fire Commissioner's Office is to minimize the loss of life and property from fire.

Advice and recommendations in the development of by-laws with assistance in ways of achieving this goal.

The Fire Commissioner's Office is not a funding source for fire departments, however, from time to time the Provincial Government makes grants available through the Fire Commissioner's Office for training initiatives.

The Fire Commissioner's Office can assist in determining the needs of equipment, apparatus, water supplies, and staffing of fire departments.

The Fire Commissioner's Office can assist in the provision of fire prevention programs and materials.

The Fire Commissioner's Office can assist/advise with regard to fire cause determination.

The Fire Commissioner's Office collects, stores and analyzes fire protection data and disseminates information and statistics based upon such data.

The Fire Commissioner's holds joint certification with the Alberta Fire Training School and is directly involved in the planning and delivery of training courses and curriculum.

The Fire Commissioner's Office partners with the Alberta Fire Chiefs Association and together strives to improve the fire and life safety in the province and reduce the loss of life and property from the devastating impact of fire.

## Other Resources

Refer to the Fire Chief's Handbook.

## Important Agencies

NFPA – National Fire Protection Association

IAO – Insurance Advisory Organization

WCB – Worker's Compensation Board

## ***BASIC FIRE DEPARTMENT REQUIREMENTS***

### **Communications**

There will be a need for public reporting, dispatching, telephone and two way radio systems that will fulfill the following functions:

- receiving the fire alarm or emergency call from the public,
- notifying fire fighters and other interested agencies of an incident,
- communication on the fireground between fire fighters and or the dispatch center.

The alarm should be received on a dedicated line for fire emergencies only.

The alarm can be received at a central 24 hour answering service, or through radio telephones carried by fire fighters.

The department must quickly dispatch fire fighters and apparatus by using the following methods:

- sirens
- air horns
- telephone fan-out system; or
- pagers

Once at the scene, fire fighters may need to talk to each other, the fire apparatus or the dispatch center. There will be a need for portable radios and mobile radios in apparatus.

A radio frequency will be required from Communications Canada for the fire department use.

### **Mutual Aid Agreements**

Legal mutual aid agreements should be entered into with neighboring communities and with the appropriate government agencies. This can provide additional resources in the event of a major emergency.

Mutual aid plans establish procedures for requesting and dispatching help between fire departments so that each party will know what is expected.

Mutual aid plans may include the following functions:

- immediate joint response of several fire departments to high risk properties
- joint response to alarms adjacent to the boundaries between fire department areas
- coverage of vacated territories by outside departments when the resources of the local department are engaged
- provision of additional units to assist at major fires that may be too large for the local department to handle
- provision of specialized types of fire fighting equipment not available locally in adequate quantity for the particular incident

Mutual aid plans should also include Operational Guidelines, interdepartmental communications, common terminology, maps and other considerations that directly affect the department's ability to operate effectively.

It is essential that inter-agency training is done to familiarize each participant with equipment compatibility and how each organization functions. This will ensure smoother operation in an emergency operation.

Command responsibility, jurisdictional questions, insurance coverage and legal constraints should be covered in written agreements supported by enabling legislation to properly establish mutual aid systems for the participating department and agencies.

Adequate manpower and equipment are needed in order for any department to help and support another jurisdiction.

### Operational Guidelines

In order for a fire department to function effectively it must be organized so that all members are working in a coordinated effort to accomplish the objectives and requirements of the department.

The fire department should develop and implement an Operational Guidelines Manual which should include but not be limited to the following procedures:

- training
- safety
- operations
- personal protective equipment

- equipment safety and maintenance
- special operations
- dangerous goods
- work site safety
- respiratory protection program

The Regional Offices of the Fire Commissioner can supply Operational Guideline samples of pre-written guidelines that will aid any department in forming their own set of guidelines.

These procedures will enhance employee safety, minimize public risk from fire department operations, increase operational effectiveness and protect fire department assets from possible loss.

The Operational Guidelines should be kept in a binder readily available for each member to read.

Maintaining a very comprehensive Operational Guidelines Manual will reduce the risk of liability claims against the fire department.

## Pre-Fire Planning

Pre-fire planning is preparing a course of action to follow against a possible fire. This process will prepare a fire department for an emergency before it happens, by providing basic information about specific areas and or buildings.

Pre-planning may involve generalized planning or disaster planning for fire, transportation or medical emergencies that may occur in the fire protection service area.

Any building or area with a high risk to life or property should be pre-planned.

Consideration should also be given to properties with particular problems of exposures, such as large structures with little or no fire resistive properties, lack of water and poor fire department access particularly in the winter and the spring.

Fuel storage and propane storage tanks present special hazards in a rural setting.

A common format for pre-plans is an 8.5 x 11 inch sheet with a scale drawing of the building. The following information is then collected:



- exposure hazards
- water main sizes
- hydrant location
- alternate source of water supply
- total water available
- street name, address
- location of power lines
- location of utilities shut-offs – power, gas, water
- name, telephone number of owner/occupier
- storage of hazardous materials
- location and type of fire protection equipment
- fire safety plans
- fire department access

The drawing should include wall and roof construction, stairwells, elevators, sprinkler systems, alarm systems, door and window locations.

Ultimately the plan is used to assist the fire department to safely address an incident.

The plan should indicate general initial attack positions of responding apparatus, highlighted water sources and necessary hose evolutions.

Complete plans must be available to those who will use them on the fireground. The plans are a great training tool. All plans should be kept current. It is good practice to keep copies of pre-plans in all first line apparatus and in the fire station.

## Records and Reports

A record system should be established to provide the fire chief and officers with accurate, up-to-date information of all fire department activities including:

- financial
- general
- personnel
- water supplies
- training
- attendance
- apparatus maintenance
- equipment maintenance

- public relations and education
- fire prevention and inspections
- fire incidents and investigations
- operational guidelines

## Reference and Technical Library

An up-to-date library with reference materials and Codes, can provide guidance and knowledge to fire department personnel.

The following current manuals should be included:

- Safety Codes Act
- Alberta Fire Code
- Alberta Building Code
- W.C.B. Industrial Health and Safety Regulations
- NFPA Fire Protection Handbook
- applicable NFPA Standards
- Alberta Fire Training School course schedule
- assorted fire trade periodicals
- International Fire Service Training Association (IFSTA) manuals

## Water Supplies

A reliable and adequate water supply for firefighting is an essential part of the fire protection system.

Water must be available to replenish water tank trucks during and after training and/or at fires.

This supply can come from hydrants in the community or from natural or man-made sources.

A study should be undertaken to determine the reliability of these water supplies during dry periods and cold weather.

Methods should be devised wherein all natural water sources in the fire protection area can be used at any time of the year. This would entail providing year round access with secure right-of-ways and providing dry hydrants.

A formal agreement for the maintenance and upkeep of fire hydrants on the water system should be in place between the fire and water authority (Appendix 4 is a sample of a Fire Hydrant Maintenance Agreement).

The agreement is based on the principal that the local government agency responsible for the water system should retain responsibility for maintaining the hydrants. There are reasons that the local fire authority might be willing to pay all or part of the cost for maintaining them.

The reasoning behind this principle, is that the water authority:

1. Owns the entire water system on which the hydrants are located;
2. Controls the design of the water system and the location of hydrants;
3. Has the regulations requiring developers to install hydrants;
4. Has the staff who is knowledgeable about maintaining water system components and the necessary equipment;
5. Also uses the hydrants to flush their water mains.

The fire department wants assurances that the hydrants will be in proper operating order when they are needed in an emergency.

Upgrades or replacements are generally picked up as part of the water authority's annual upgrading and maintenance program in conjunction with the Fire Department's recommendations, but within the financial capacity of the community.

A written agreement should be drawn up for maintenance and use of any private water systems.

### Wildfire Threats to Urban Interface Areas

Rural areas are becoming increasingly popular as outstanding locations for both seasonal and permanent residences.

A bylaw should be established to control vegetation and construction methods in urban interface areas. Alberta Sustainable Resources has a manual called "Fire

Smart: Protecting your Home from Wildfire”. This manual can assist residents in the interface area with many good recommendations on safety.

Public and private education will lessen the risk of wildland/urban interface fires. An increased awareness and homeowner involvement will ensure greater safety in this area (see Appendix 3 references).

## **APPENDIX 1**

### **Fire Department Bylaws and Orders**

The fire bylaw is an enabling piece of legislation which gives the local government elected body (Council or Board) the authority to create a fire department, and gives the authority for the fire department to function under.

One area covered under this bylaw is the authority to enter a premises; there are a number of fire departments in Alberta that do not have this identified in their bylaws and if a legal entanglement were to evolve out of a fire incident the fire department could theoretically be charged with trespass, and possible subrogation by an insurance company for damage.

The bylaw gives the authority for the Fire Chief to set out the rules, regulations and orders for the organization, administration and operation of the fire department. These are normally referred to as Fire Department Standing Orders.

Although all the functions outlines are necessary for the efficient operation of a large fire department, the same number of divisions may not be required to carry out the efficient operation of smaller of volunteer fire department.

Some of the functions, therefore, may be deleted or consolidated according to the requirements of the particular local government body.

The bylaw has been designed essentially for enactment by incorporated local government bodies. With the agreement of their legal advisor, it may be equally applied to any areas or fire districts as defined by the appropriate bylaws or legislation.

## **APPENDIX 3**

### **Reference Materials**

#### **National Fire Protection Association standards:**

- 299 Protection of Life and Property from Wildfire
- 1231 Water Supplies for Suburban and Rural Fire Fighting
- 1500 Fire Department Occupational Health & Safety
- 1901 Pumper Fire Apparatus
- 1902 Initial Attack Fire Apparatus
- 1903 Mobile Water Supply Fire Apparatus
- 1911 Service Tests of Pumps on Fire Department Apparatus

#### **Fire Underwriters Survey:**

- Water Supply for Public Fire Protection
- Dwelling Protection Grades

#### **Office of the Fire Commissioner:**

- Fire Department Operational Guidelines
- Establishment and operation of Fire Departments

#### **Province of Alberta Water Management Branch:**

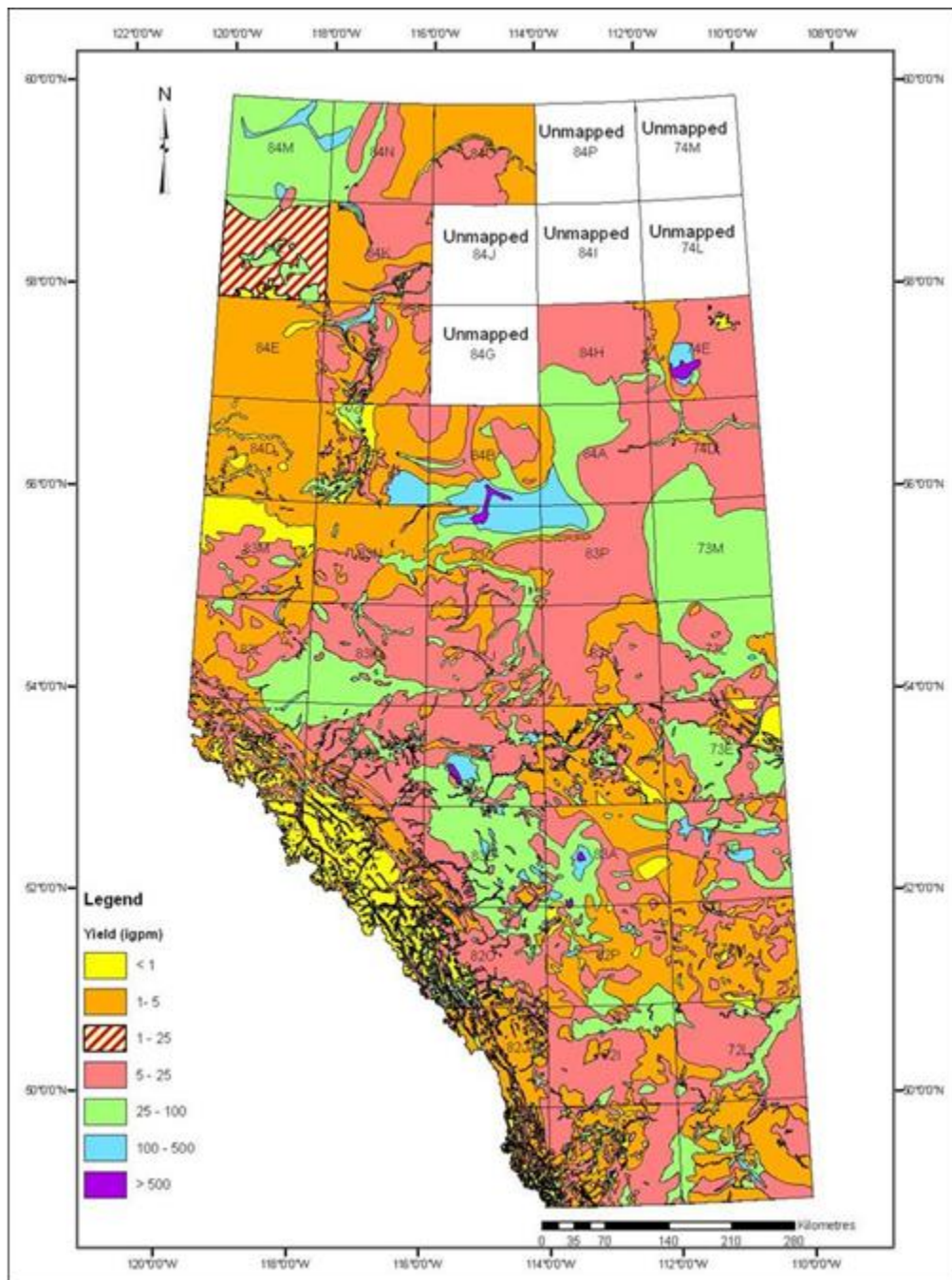
- Design guidelines for rural residential community water systems

#### **ULC-S515:**

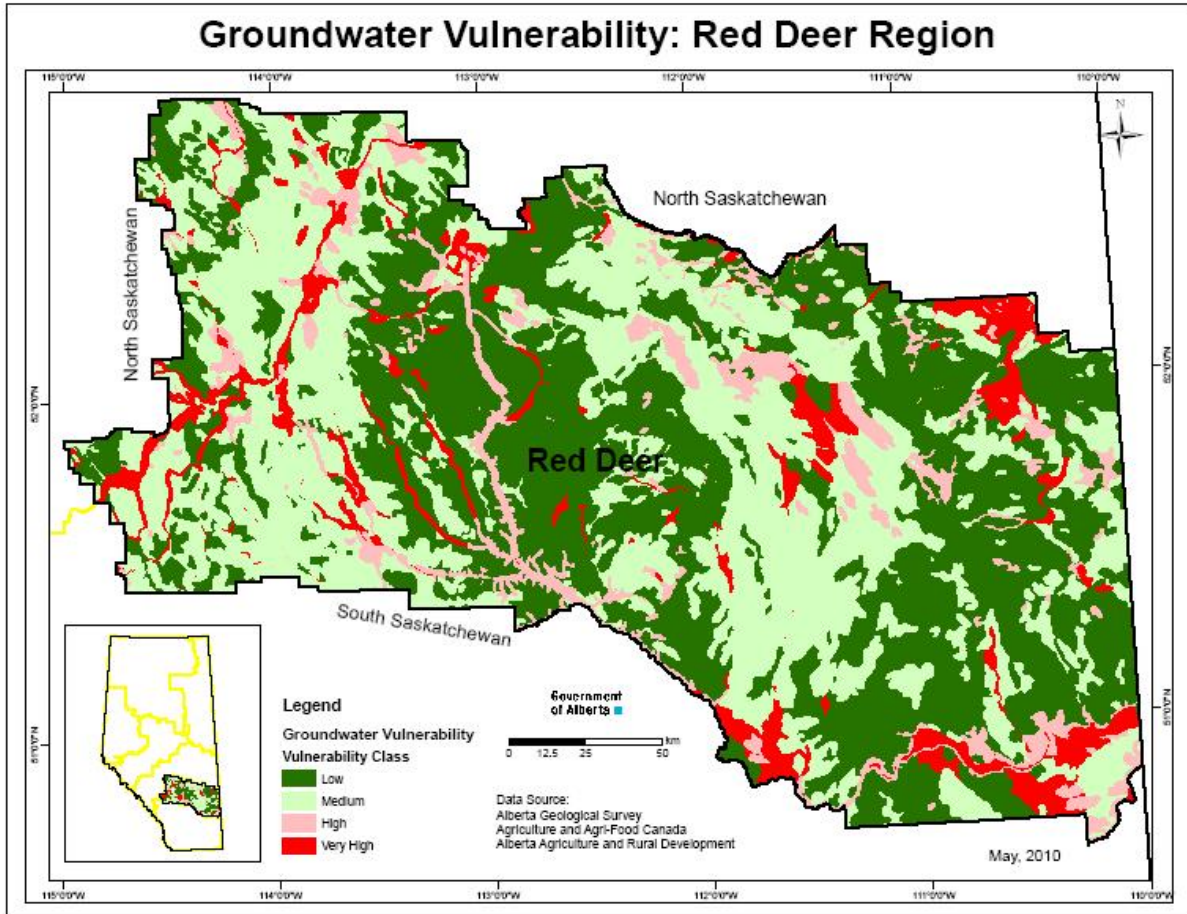
- Standard for Automobile Fire Fighting Apparatus

## Appendix D

### MAPPING OUTLING WATER AVAILABILTY IN THE ALBERTA REGION

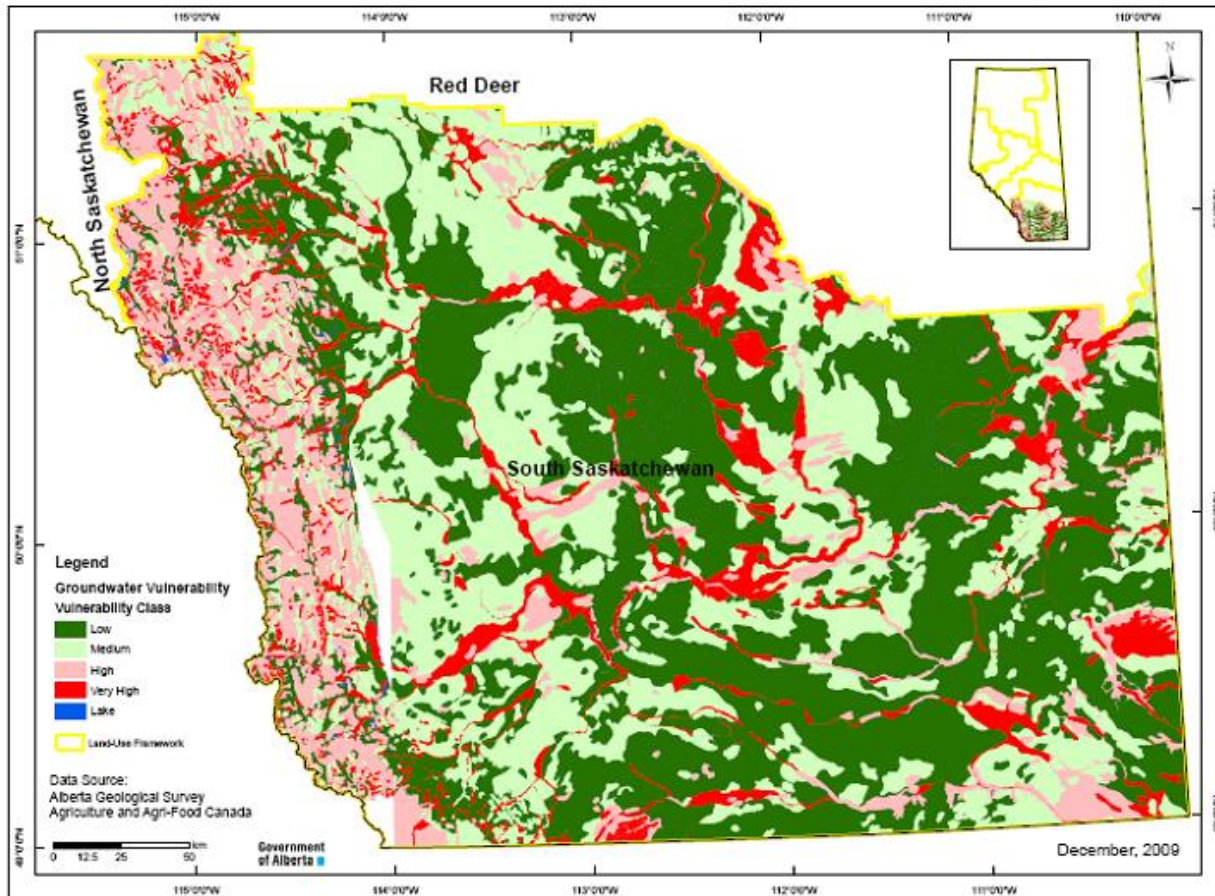


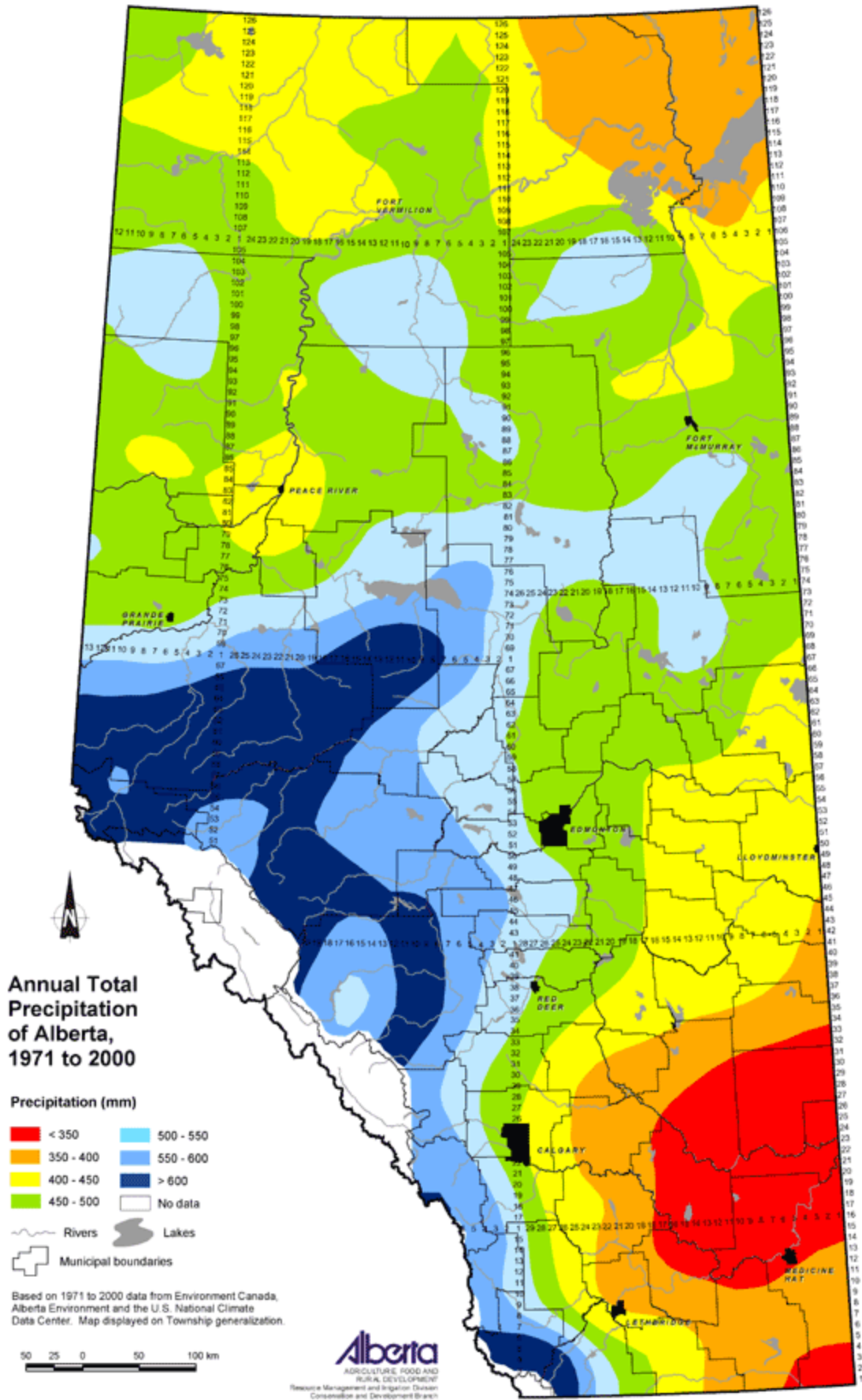


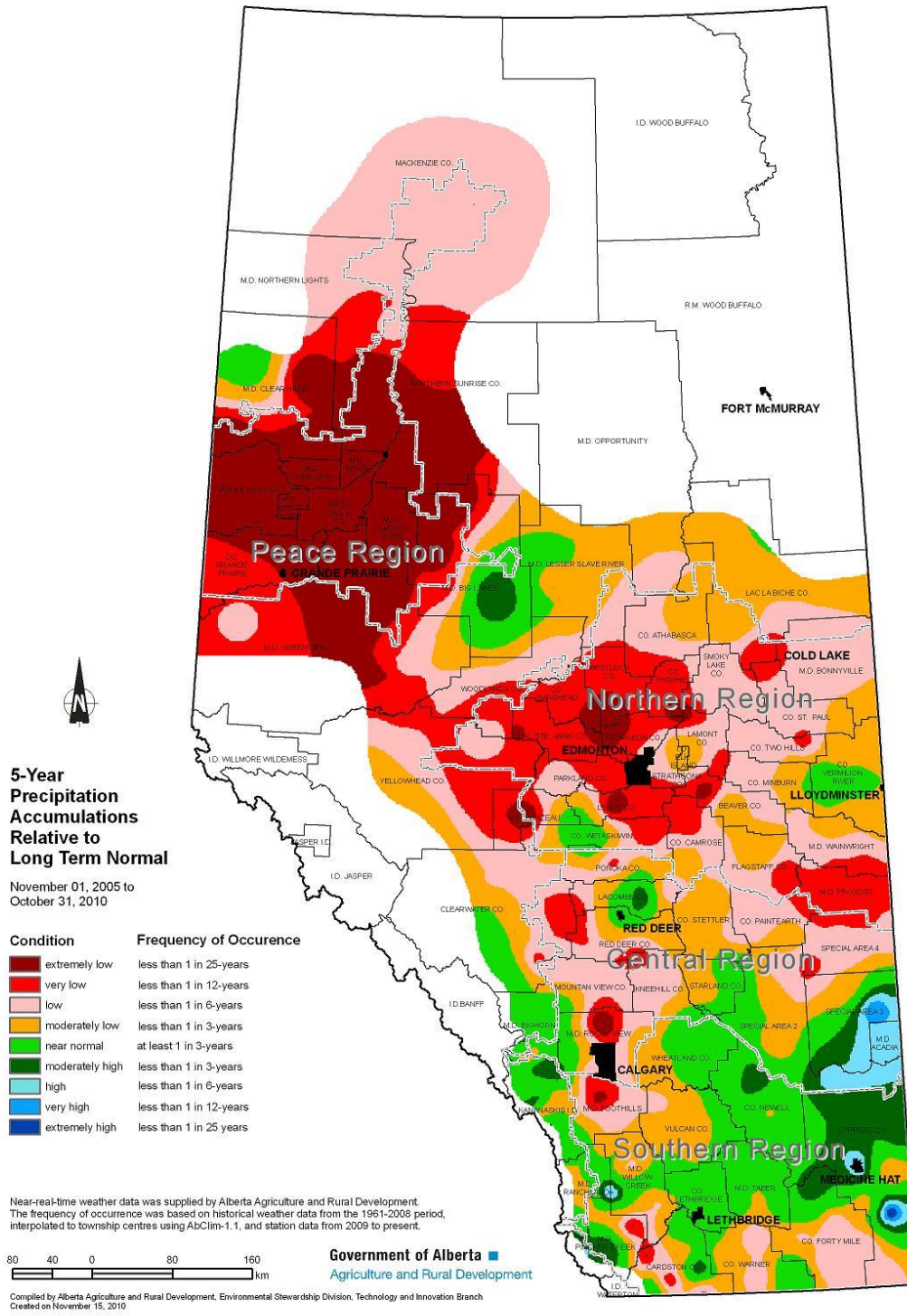




### Groundwater Vulnerability: South Saskatchewan Region









## APPENDIX F

# CONDOR / LESLIEVILLE PUBLIC CONSULTATION *STATION RE-LOCATION STUDY*

**Leslieville Community Centre  
May 4, 2016**



## CLEARWATER COUNTY STATION RE-LOCATION STUDY

As per original RFP: Collect objective data from records and global information systems (GIS) for:

- Target Hazard Analysis
- Future community growth including placement of major industry
- Volunteer firefighter availability
- Volunteer firefighter travel distances
- Travel times to target hazards
- Arterial road access
- Water supply
- Communications capacity
- Training ground options



## PRESENT STATIONS

Leslieville Station



Condor



## INPUT AND CONSIDERATIONS

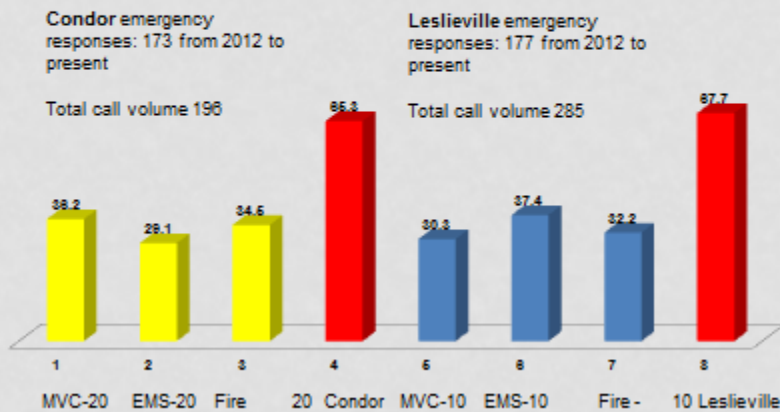
- Why the need to upgrade
  - Occupational Health and Safety
  - Fire fighter safety
  - Facility integrity
  - Scope of station responses
  - Need for integration as a unified response force
  - Need for enhanced joint training
  - Need to accommodate future apparatus
  - Reduction in operating costs

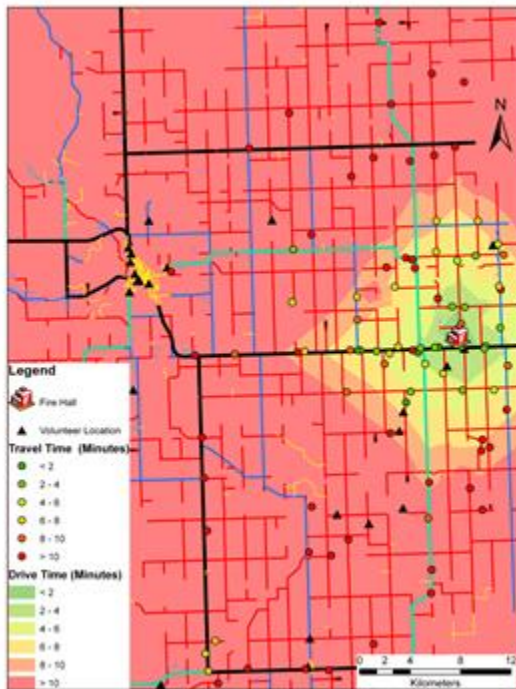
## DEPLOYMENT ANALYSIS

- A process of mathematically validating fire station location
- Existing response data is compared to computer driven models that consider posted road speeds and layout
- The greater the quantity and integrity of the response data the truer the depiction

## EMERGENT RESPONSES

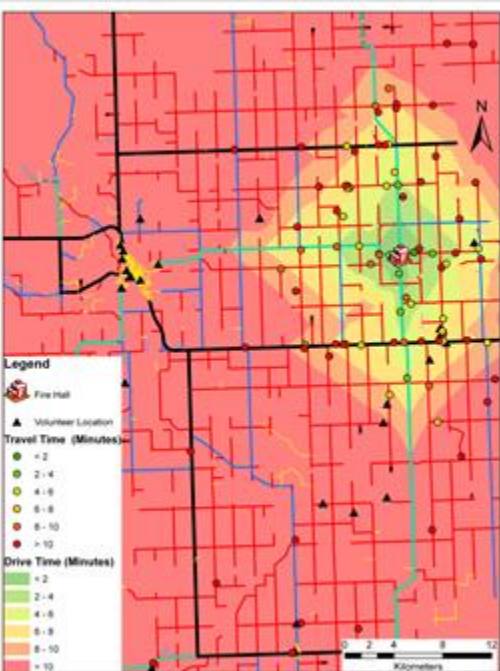
Department % Responses by emergent category





### Condor

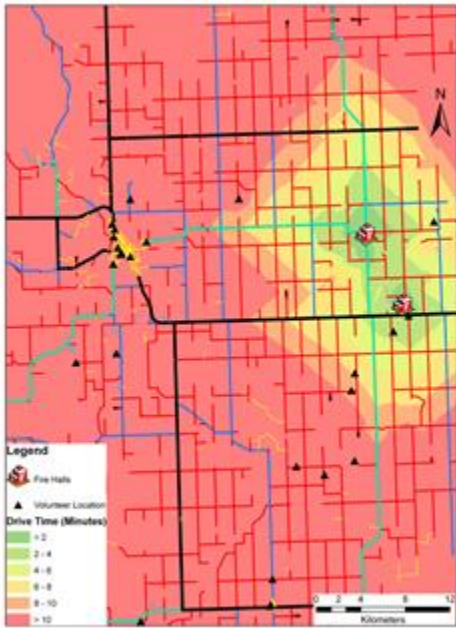
- Data for a 3 year period
- 173 incidents considered in the data field



### Leslieville

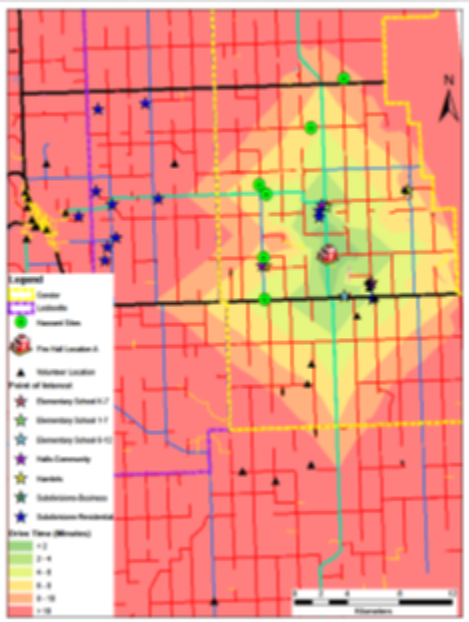
- Data for a 3 year period
- 177 incidents considered in the data field





Summary of both Condor and Leslieville Stations for posted road speed drive times

We cannot consider chute times in overall calculations

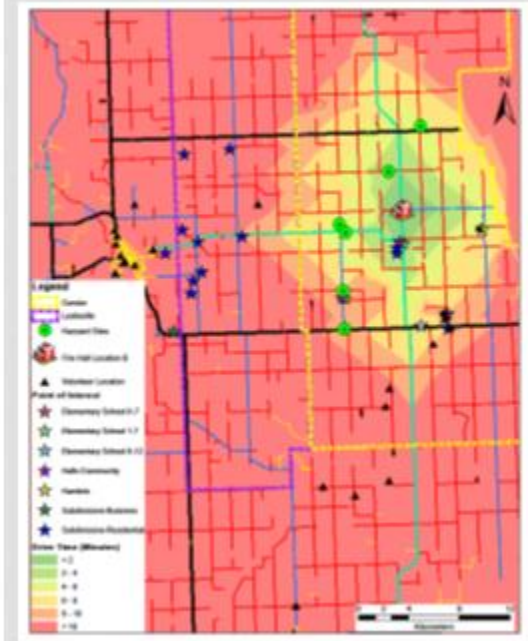


Option #1:

This site is almost equidistant from both the communities of Condor and Leslieville. The GIS mapping shows that the response footprint would change minimally. Both centers would be within 5km of the station and coverage to the target hazards would be similar based on the present response times.

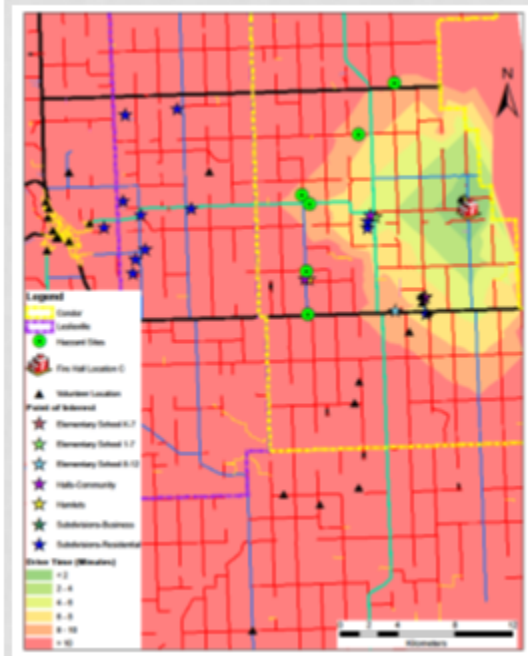






Option #2:

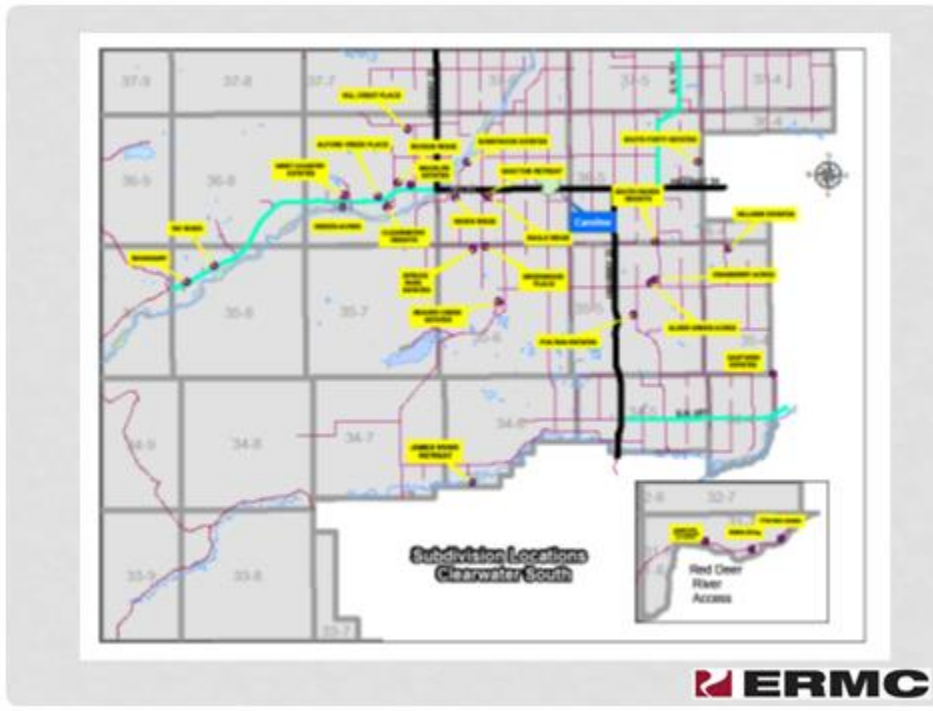
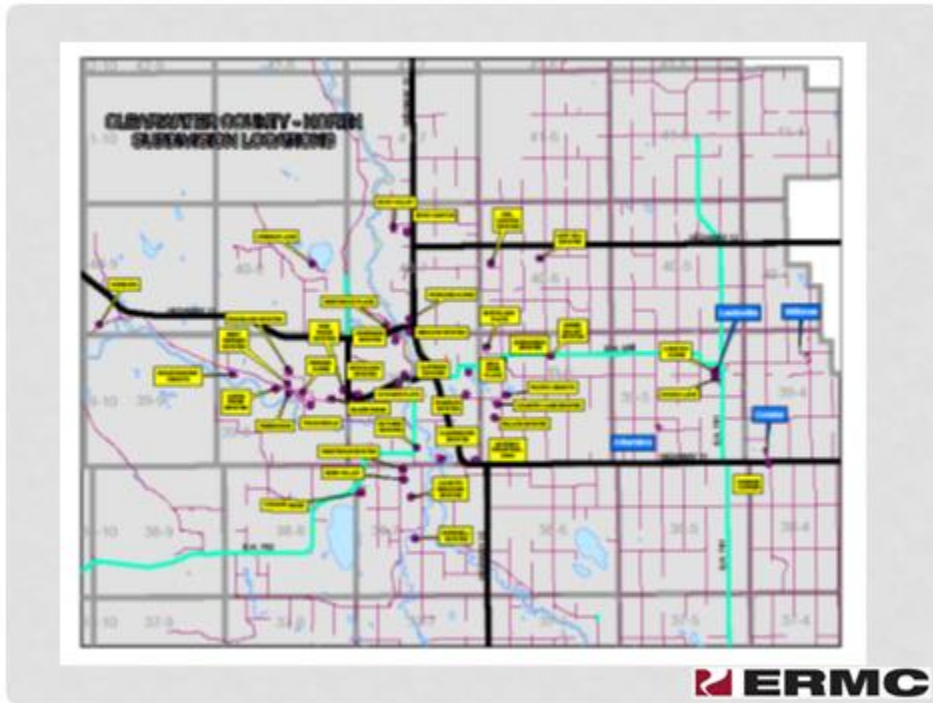
This location is closer to the Leslieville community and able to better service the areas to the west along 598 and the north. Condor and south would begin to see a reduction in service as indicated by the mapping



Option #3:

The only advantage to this site is that it would enhance the coverage to Withrow, but be a deficit to Condor and all the identified targets to the west of Leslieville and the high frequency of Hwy 11.





## NEXT STEPS

### Information Gathered

- Basic response data
- Call type/ workload
- Response time avg: 18.2 min
- Volunteer FF locations
- Ground water projections

### Information to be considered

- Directed service levels
- Potential site locations
- Future community / industry growth

### Information Gathering

- Consultation with
  - Council
  - Fire Committee
  - Fire Administration
  - **Fire Fighters**
  - **Public interests**



**Minutes of the Clearwater Regional Fire Rescue Services Meeting**, held April 19, 2016 at the Leslieville Fire Station in Leslieville, Alberta.

1. **Call to Order**: the meeting was called to order at 7:03 P.M. by Chief Cammie Laird with the following being present:

Cammie Laird – Fire Chief, Station 90

Paul Prevost – Deputy Chief, Station 90

Ted Hickey – Director of Community and Protective Services, Clearwater County

Whitney Wedman – Administrative Assistant, Clearwater County,

Secretary

Dan Paulsen – ERMC Facilitator

Tim Plante – Station 30

Chad Wolf - Station 30

Yvonne Evans - Station 30

Rochelle Klepel - Station 30

Brian Goldstrom – Station 10

Mitchell Watton – Station 20

Daniel Sweeting – Station 10  
 Michael Vanderbaaren – Station 60  
 Gordon Laird – Station 10  
 Peter O'Toole – Station 60  
 Mike Vig – Station 60  
 Kristofer Heemeryck – Battalion Chief 2  
 Brian Lougheed – Station 20  
 Park Tyson – Station 10, 20 & 30  
 Jackie Phillips – Station 10  
 Jessica Setym – Station 10  
 Cory Pittendreigh – Station 20  
 Daryl Lougheed – Station 20  
 Carl Britton – Station 20  
 Bill Groves - Station 30  
 Wayne McMullan - Station 30  
 Sheldon Mehlhaff – Battalion Chief 1  
 Rob Simpson – Station 10  
 Theresa Simpson - Station 10  
 Clayton Simpson – Station 10

Teleconference      Ivan Dijkstra – Deputy Chief, Station 90  
                              Ray Moller – Battalion Chief 3  
                              Dean Townsend – Station 10  
                              Courtlin Quinn – Station 50

## **2. Introductions**

Introductions were made around the table.

## **3. ERM Presentation of Statistics**

Objective Data:

- Target Hazard Analysis
- Future Community Growth
- Volunteer Firefighter Availability
- Volunteer Firefighter Travel Distance
- Travel Times to Target Hazards
- Arterial Road Access
- Water Supply
- Communications Capacity
- Training Ground Options

## Leslieville and Condor Stations

Both of the stations were built in the 1970's and renovations to both in the 1980's. The buildings are aging and have very poor ventilation. To bring both of the buildings up to OH&S standards there would be extensive ongoing costs. If one new station was built and amalgamated the two stations the following concerns would be addressed:

- Firefighter Safety
- Washing Facilities
- Bunker Gear Location
- Structural Integrity
- Scope of Station Response
- Unified Response Force
- Enhanced Joint Training
- Accommodation of Future Apparatus'
- Reduction of Operating Costs

A deployment analysis was completed from data from 2012 to 2015. From 2012 to 2015 Condor Station had a total of 173 Emergency Responses and Leslieville Station had a total of 177 Emergency Responses. The average response time to date is eighteen (18) minutes.

Three options were given for the location of one unified station:

- a) 5km between both Condor and Leslieville
- b) North of Leslieville – Railroad would be an issue
- c) Withrow – Decreased coverage of Condor

#### 4. Firefighter Discussions

Questions	Answers
If an amalgamation occurred would the fleet be reduced?	No, as the current apparatus for stations 10/20 are complementary to each other.
Would the water holding tank be doubled	That would be part of the design stage and part of the plan if the new station is approved.
Would the distance for firefighter personnel to the station change the response time?	Volunteerism is a transient business and the distance to the station will change for firefighters from year to year dependent on where volunteers reside

<p><b>Clearwater County</b> Fire Services Station Location Study</p>	<p>Dan Paulsen Date: May / 2016</p>
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	and work.
<p>Would there be a drawback of volunteers if the station locations changed?</p>	<p>There might not be an increase in volunteers but there should not be a drawback.</p>
<p>If the station is in an isolated area would vandalism be an issue?</p>	<p>There is always that possibility, however that would be something that would need to be addressed during the design stage through mitigation, such as electronic surveillance and monitoring.</p>
<p>Not convinced that the data shows the value of maintaining 2 stations in each community rather than one new building.</p>	<p>If we already recognize the value and efficiencies of having one centrally co-located station, one effective station is better than no change to the current stations or no station at all.</p>

**5. Summary**

The firefighters all unanimously agreed that amalgamating the two stations in a central location would assist in serving the whole community. The end goal would be to create a public services building with a general time frame of 2017 to 2019. Our message as a team to the community needs to be a united front demonstrating the need to build one centrally co-located station serving both communities and surrounding area.

Community engagement meeting at Leslieville Community Hall scheduled for May 4, 2016 at 19:00 hours- Firefighters are encouraged to attend.

Adjournment: 8:50 P.M.

Leslieville and Condor Public Consultation  
Station Re-Location Study  
May 4, 2016

Attendance as Follows:

- 19 Firefighters
- 2 Clearwater County Councilors
- 2 Media Representatives
- 2 Clearwater County Administration
- 22 Community Members
- Consultant



For generations, firefighters from Leslieville and Condor fire stations worked together to deliver fire emergency services to communities within Clearwater County. Both fire stations have served the communities and firefighters, however, due to the ages of both stations there are significant design and financial considerations for the future success of Clearwater Regional Fire Rescue Service (CRFRS).

Leslieville and Condor firefighters, the Clearwater Regional Fire Rescue Service Committee and Clearwater County Council have worked together to better CRFRS, prepare for the future and provide a location to assist other service providers.

We invite the public to hear and provide feedback on this fire station review and the possibility of combining the two current stations.

### **Presentation by Dan Paulsen, ERMC Consultant**

#### Objective Data:

- Target Hazard Analysis
- Future Community Growth
- Volunteer Firefighter Availability
- Volunteer Firefighter Travel Distance
- Travel Times to Target Hazards
- Arterial Road Access
- Water Supply
- Communications Capacity
- Training Ground Options

#### Leslieville and Condor Stations

Both of the stations were built in the 1970's and renovations to both in the 1980's. The buildings are aging and have very poor ventilation. To bring both of the buildings up to OH&S standards there would be extensive ongoing costs. If one new station was built and amalgamated the two stations with the following concerns would be addressed:

- Firefighter Safety
- Washing Facilities
- Bunker Gear Location
- Structural Integrity
- Scope of Station Response
- Unified Response Force
- Enhanced Joint Training
- Accommodation of Future Apparatus'
- Reduction of Operating Costs

<p><b>Clearwater County</b> Fire Services Station Location Study</p>	<p>Dan Paulsen Date: May / 2016</p>
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A deployment analysis was completed from data from 2012 to 2015. From 2012 to 2015 Condor Station had a total of 173 Emergency Responses and Leslieville Station had a total of 177 Emergency Responses. The average response time to date is eighteen (18) minutes.

Three options were given for the location of one unified station:

- d) 5km between both Condor and Leslieville
- e) North of Leslieville – Railroad would be an issue
- f) Withrow – Decreased coverage of Condor

Community Questions and Concerns

Questions/Concerns	Answer
<p>What is the response distance for the firefighters in Condor and Leslieville?</p>	<p>The Condor and Leslieville stations respond North of Highway 12 to the County border, to Caroline, Rocky Mountain House and to the eastern edge of the County border.</p>
<p>Does Rimbey respond to Clearwater County?</p>	<p>Clearwater County has mutual aid and fire service agreements with numerous municipalities which helps to assist in gaining more resources when requested.</p>
<p>What is the view on this for the firefighters?</p>	<p>The firefighters are in 100% agreement to amalgamate the two stations and move forward.</p>
<p>How much would a new station cost considering the Nordegg Public Services building cost 3 million dollars to build?</p>	<p>The Nordegg building was designed and built to accommodate a myriad of services including:</p> <ul style="list-style-type: none"> <li>• Public Safety</li> <li>• Operational Joint Task Force</li> <li>• Search and Rescue Training</li> <li>• Highway Patrol Training</li> <li>• Community</li> <li>• Ambulance Service</li> </ul>
<p>If the stations were left as is would there be room for future expansion?</p>	<p>There is not sufficient space for expansion and the building need extensive upgrades to comply with OH&amp;S standards.</p>
<p>What would the timeline be for a new</p>	<p>If a new building is approved by Council</p>



<b>Clearwater County</b> Fire Services Station Location Study	Dan Paulsen Date: May / 2016
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building?	and budget the best case scenario would be within 3 years.
What is the County's priority, a new fire hall or a new administration building?	Tonight's discussion is to gain community insight on the amalgamation of the two stations. Council is very aware of the rate payer's interests and concerns on other County decisions and will address those at a later date.
What is the timeline for the community response?	If the community would be willing to compose their thoughts in writing to the County within the next two weeks, administration will include any letters with their presentation to Council.
What were the developments indicated on the map?	The developments were the locations of subdivisions, commercial buildings/sites, schools, seniors housing and churches.
How much land would be needed?	Ideally 5 – 7 acres
Will there be other community meetings regarding this station re-location?	This will be the only community open house for this study. We have spoken with Council, the firefighters, the CRFRS Committee and now the community. The next step is to take all of the compiled information and bring it back to Council for a decision.
Who answers our 911 phone calls?	Red Deer dispatch is our call answer point. Fire calls go to Red Deer, ambulance calls go to Calgary and if all lines are blocked the calls go to Lethbridge.
GPS does not seem to be the same for dispatch when you call 911.	The County will look into that with 911 dispatch and GIS mapping.

### Community Members Remarks

- The Condor and Leslieville stations are working together anyway, so a joint department would make the most sense.
- The firefighters would all like to move forward with this and they have my support.
- The distance area looks the same for response on the statistics shown on the map so one station to house Condor and Leslieville firefighters and equipment makes sense.

Comment to Council from Rate Payer

As a rate payer, home owner, business owner and firefighter within Clearwater County I would like to see the two stations amalgamated. As firefighters we give our communities 100% support in their time of need; now we need the support of our community and Council. Our volunteer firefighters deserve to have a safe work environment.

May 1, 2016

MAY 25 2016

Councillor Lent Maki

I do not have a computer or smart phone to E MAIL, also I am unable to go to the May 30 meeting so I am writing to let you know that I oppose the development or any construction as outlined for the property out near the airport.

- the Alberta economy has been shaky in the past year, with the fires up at Fort McMurray it is in ever more jeopardy.
- the proposed dollar amount of the completed project is huge, and it will have no direct benefit to the taxpayer.
- taking money out of reserves to fund the construction is what my parents would call robbing Peter to pay Paul. I may ask is there a plan to put money back in to these various reserves and what is it?.
- if circumstance happens that the reserve is needed for its intended purpose, then what?.

This proposed building site is in an out of the way location, it will not be seen by most taxpayers and likely not by visitors to the county either.



I want to bring the following to your attention. I never hear it discussed.

It costs as much for taxes, vehicle insurance/ expenses, dwelling insurance/ expenses and utilities for a single income senior as it does for a couple, but only one pension income to pay the cost. Each time my insurance and other expenses go up I have to cut back somewhere. Medical & food is all I have control over.

The governments, Federal, Provincial, Municipal and Utility companies all have the ability to take my property away from me if I do not pay my bills. My only recourse is to cut back on what I have control of.

Perhaps the time has come for the County to look at where they can cut back or downsize etc.

Leslieville and Concord schools shared a secty at one time. Other municipalities are now job sharing. Contract workers and working from home is being made use of in other business's, why not in Clarendon County also?

at this time I would also address the issue of a new fire station in the Leslieville Concord area

If either Reslanville or Concord or both lose their fire stations it will have a detrimental effect on these two hamlets. Anyone looking to locate in these hamlets would deem a fire hall an asset.

I am not in favor of 1 fire hall to serve these 2 communities!

If the money spent on the fire station in Mordegg had been divided 3 ways or even 50/50 all three hamlets would now be enjoying new fire stations.

I believe benefits to taxpayers should have priority over new County buildings at this time.

I would appreciate a brief response indicating receipt of my letter. Thank you.

Respectfully,  
Marion Schaefer

Daryl and Penni Lougheed  
Box 728, Condor AB  
T0M 0P0  
403-729-2335

Mr. Ted Hickey  
Director of Community and Protective Services  
Clearwater County

Dear Mr. Hickey

We are writing this letter in response for public input on the proposed consolidation of the existing Leslieville and Condor Fire Stations.

As you may know our family has been actively involved with the Condor Fire Department for two generations spanning well over 30 years. We have been honored by the trust placed in us by our community and our region to protect their families. We are also proud to have served with many dedicated people to form, to build and to sustain Clearwater Regional Fire Rescue Services. We have been fortunate to witness the evolution of CRFRS to the exemplary service it is today and are committed to strengthen and support it in the future.

With that in mind, we would be pleased to extend the following offer:

We will donate (free of any charge) a suitable plot of land for the purpose of a fire station, or a combined fire station, or a combined station/training centre. Possible sites would include over 1 km of Hwy 11 frontage, along RR 5-0, along RR 4-5, areas surrounding the hamlet, and areas adjacent to county owned properties.

In conclusion, it is essential for the future of our communities and our region to build for the present need and also support the needs of the future. We hope you share this view and would be pleased to discuss how we can work together toward those goals.

Sincerely,



Daryl and Penni Lougheed

**Ted Hickey**

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**From:** ross and bev goodwin  
**Sent:** Thursday, May 12, 2016 8:02 PM  
**To:** Ted Hickey  
**Subject:** Leslieville and Condor Fire Stations

**Follow Up Flag:** FollowUp  
**Due By:** Thursday, May 12, 2016 8:49 PM  
**Flag Status:** Flagged

Just a quick note to say I attended your meeting in Leslieville on May 04 th found it very informative. I do believe building a new fire station in the future is better then renovating the two. Location is very important to all residents in the area ,also cost,but it must be safe with adequate space. Good luck! Bev Goodwin





## AGENDA ITEM

<b>PROJECT: Delegation –Pure High-Speed Ltd. – Dean Anderson</b>		
<b>PRESENTATION DATE: June 14, 2016</b>		
<b>DEPARTMENT:</b> Economic Development	<b>WRITTEN BY:</b> Ted Hickey	<b>REVIEWED BY:</b> R. Leaf, CAO
<b>BUDGET IMPLICATION:</b> <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Funded by Dept. <input type="checkbox"/> Reallocation		
<b>LEGISLATIVE DIRECTION:</b> <input checked="" type="checkbox"/> None <input type="checkbox"/> Provincial Legislation (cite) <input type="checkbox"/> County Bylaw or Policy (cite) Bylaw: _____ Policy: _____		
<b>STRATEGIC PLAN THEME:</b> 1: Managing Our Growth	<b>PRIORITY AREA:</b> 1.3	<b>STRATEGIES:</b> 1.3.4
<b>ATTACHMENTS: N/A</b>		
<b>RECOMMENDATION:</b> That Council receives this report as information.		

### BACKGROUND:

Council had expressed more information regarding the County's future roles in enhancing the provision of broadband internet services received within the County.

Mr. Dean Anderson is the owner of Pure High-Speed Ltd. that provides wireless internet services within Clearwater County. At Council's invitation, he will discuss broadband/internet services to better inform Council as follows:

1. current service provisions;
2. opinions on service needs;
3. recommendations on how to enhance/improve internet services in the County;  
and
4. future development plans that Pure High-Speed are considering.
5. Information that may be known of other local and provincial WISPs.
6. what, if any partnerships might be developed with the County to enhance their provision of broadband internet service.



# **PURE** High-Speed

We have had Pure High-Speed internet now for just over a year and love it. Our family of 4 can watch Netflix all on different devices at the same time with no buffering. And can't say enough good things about Dean and his staff when it comes to customer service. A 5 star company for sure. Highly recommend  
Darrell

## **WIRELESS HIGH SPEED INTERNET**

<https://youtu.be/bibicEewaV8>

# ULTRA FAST

- Recently upgraded network
- Download speeds up to 15 Megabits per second
- Upload up to 10 megabits per second
- Always-on service



## Packages

<p><b><u>Surfer</u></b>  <b>\$44.95</b>            Up to 3 Mbps downstream            Up to 512 Kbps Upstream            5 email addresses            Transfer of 50 GB</p>	<p><b><u>Streamer</u></b>  <b>\$64.95</b>            Up to 5 Mbps downstream            Up to 1.5 Mbps Upstream            5 email addresses            Transfer of 100 GB</p>	<p><b><u>High-Speed</u></b>  <b>\$89.95</b>            Up to 7 Mbps downstream            Up to 2 Mbps Upstream            5 email addresses            Transfer of 150 GB</p>	<p><b><u>Pure High-Speed</u></b>  <b>\$119.95</b>            Up to 12 Mbps downstream            Up to 3 Mbps Upstream            5 email addresses            Transfer of 200 GB</p>
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**Unlimited 5 \$150.00/month**

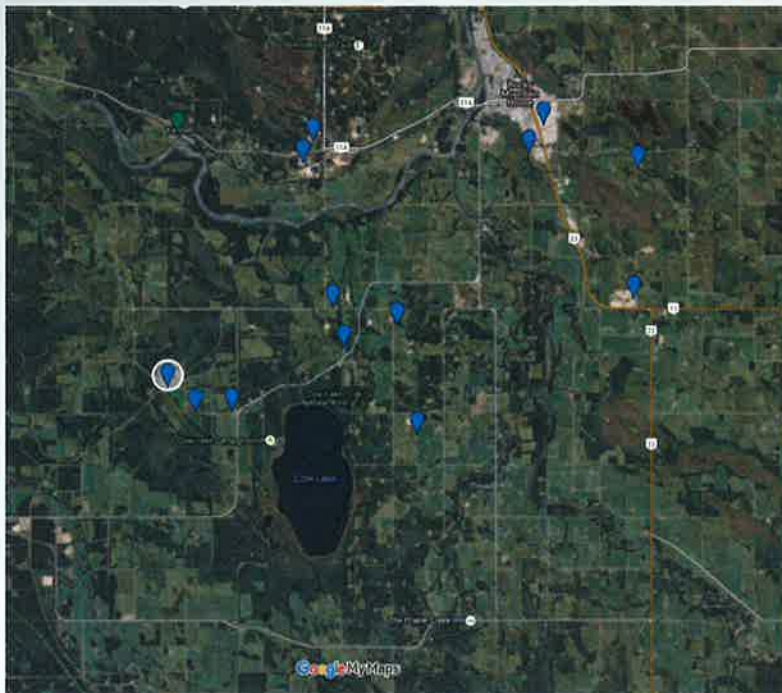
Will get you a synchronous 5 Mbps down and 5 Mbps up

**Unlimited 10 \$300.00/month**

Will get you a synchronous 10 Mbps down and 10 Mbps up

**Unlimited 15 \$450.00/month**

Will get you to a 15 Mbps down and 10 Mbps up



- 13 towers to date
- Covering West & SW of Rocky
- Coverage plans for expansion to under serviced areas
- Leland Visotto "Dean thank you this the best Internet I've ever had 12.5 down 3.75 up and ping of 20 thankyou thankyou"

## CURRENT COVERAGE

## INSTALLATION

- Professionally installed
- Radio is mounted on roof
- One cable provides power and data
- Connection is set up on router or home computer
- 24/7 live technical support at no extra charge

**We have been very happy with purehighspeed.**

**Thanks Adele Kreutzer**



## Opinion on current service needs

- Biggest challenge in clearwater county is trees and rolling hills
- There are large "shadows" where internet is not accessible
- More coverage is required through access to towers
- Needs a stable internet service provider
- Better Commercial and Residential coverage
- Consumer needs high capacity connection
- Enhanced economic development through supplying a stable high speed, low latency, affordable connection to the global market

[www.PureHighSpeed.ca](http://www.PureHighSpeed.ca)

Thank you



587-798-0818



## AGENDA ITEM

<b>PROJECT: Delegation - Harewaves Wireless Inc. – Andrew Van Dirsten</b>		
<b>PRESENTATION DATE: June 14, 2016</b>		
<b>DEPARTMENT:</b> Economic Development	<b>WRITTEN BY:</b> Ted Hickey	<b>REVIEWED BY:</b> R. Leaf, CAO
<b>BUDGET IMPLICATION:</b> <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Funded by Dept. <input type="checkbox"/> Reallocation		
<b>LEGISLATIVE DIRECTION:</b> <input checked="" type="checkbox"/> None <input type="checkbox"/> Provincial Legislation (cite) <input type="checkbox"/> County Bylaw or Policy (cite) Bylaw: _____ Policy: _____		
<b>STRATEGIC PLAN THEME:</b> 1: Managing Our Growth	<b>PRIORITY AREA:</b> 1.3	<b>STRATEGIES:</b> 1.3.4
<b>ATTACHMENTS: N/A</b>		
<b>RECOMMENDATION:</b> That Council receives this report as information.		

### BACKGROUND:

Council had expressed more information regarding the County's future roles in enhancing the provision of broadband internet services received within the County.

Mr. Andrew Van Dirstein is the owner of Harewaves Wireless Inc. 2004 that provides wireless internet services within Clearwater County. At Council's invitation, he will discuss broadband/internet services to better inform Council as follows:

1. current service provisions;
2. opinions on service needs;
3. recommendations on how to enhance/improve internet services in the County;  
and
4. future development plans that Harewaves' are considering.
5. Information that may be known of other local and provincial WISPs.
6. what, if any partnerships might be developed with the County to enhance their provision of broadband internet service.





## AGENDA ITEM

<b>PROJECT: Village of Caroline Lending Bylaw 1017/16</b>		
<b>PRESENTATION DATE: June 14, 2016</b>		
<b>DEPARTMENT:</b> Corporate Services	<b>WRITTEN BY:</b> Rhonda Serhan	<b>REVIEWED BY:</b> Ron Leaf
<b>BUDGET IMPLICATION:</b> <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Funded by Dept. <input type="checkbox"/> Reallocation		
<b>LEGISLATIVE DIRECTION:</b> <input type="checkbox"/> None <input checked="" type="checkbox"/> Provincial Legislation (cite) <input type="checkbox"/> County Bylaw or Policy (cite) Bylaw: ____1017/16____ Policy: _____ MGA Section 231, 265 & 606		
<b>STRATEGIC PLAN THEME:</b>	<b>PRIORITY AREA:</b>	<b>STRATEGIES:</b>
<b>ATTACHMENT(S): Bylaw 1017/16 and Loan agreement with the Village of Caroline</b>		
<b>RECOMMENDATION: First reading of Bylaw 1017/16</b>		

### BACKGROUND:

As Council is aware, the Village of Caroline is entering into a partnership with Alberta Transportation, enabling them to rehabilitate critical infrastructure within the Village. The Village is the organizer of said work, and is therefore responsible for the payment of all invoices for this project. Alberta Transportation is co-funding some of this project, totaling approximately \$1,000,000. Alberta Transportation may not be able to provide funding in a timely enough manner, to pay invoices due without the Village incurring penalty charges.

The Village sat before Council requesting that Clearwater County temporarily fund Alberta Transportations share of the work, thus enabling the Village to pay these invoices without incurring penalty. The Village is also working with Alberta Transportation to mitigate the time between when the invoices are received until which time Alberta Transportation could have funds to the Village.

The MGA requirement (section 265) of the lending of funds from Clearwater County is that a bylaw is required. We have had Brownlee draw up the bylaw which must, and does, include the amount of money to be borrowed, the terms of repayment and the source of the money to be loaned. The other requirement for a lending bylaw is that it must be advertised (section 606). If council so chooses to pass first reading of the lending bylaw, we would advertise for two weeks in the local newspapers, as well as posting on our website. The deadline for petitions on a financial bylaw (section 231 (3)) is 15 days after the last date of advertisement, in this case

would be 15 days after June 28<sup>th</sup>, being July 13<sup>th</sup>. The bylaw would be scheduled for second and third reading at the July 26<sup>th</sup> Council meeting.

**CLEARWATER COUNTY  
BYLAW 1017/16**

**BEING A BYLAW OF CLEARWATER COUNTY IN THE PROVINCE OF ALBERTA TO AUTHORIZE AN INTEREST FREE INTERIM FINANCING LOAN TO THE VILLAGE OF CAROLINE FOR THE PURPOSE OF PROVIDING FUNDS FOR THE VILLAGE OF CAROLINE'S MAIN STREET PAVING PROJECT.**

**WHEREAS** pursuant to Section 264(1)(a)(2) of the *Municipal Government Act*, R.S.A. 2000, Chapter M-26, as amended, a municipality may lend money to a non-profit organization if the municipality's council considers that the money loaned will be used for a purpose that will benefit the municipality;

**AND WHEREAS** this Bylaw was advertised in accordance with Section 265(3) of the *Municipal Government Act*, R.S.A. 2000 Chapter M-26;

**AND WHEREAS** Clearwater County Council is satisfied that the Loan will not impact the Clearwater County debt limit in accordance with Section 268 of the *Municipal Government Act*, R.S.A. 2000 Chapter M-26;

**AND WHEREAS** the Village of Caroline has reached an Agreement with Alberta Transportation (the "**Province**") to share the cost of completing the paving upgrade of the Village of Caroline's Main Street (Provincial Highway 54) (the "**Project**") whereby the Province has agreed to contribute one third of the total Project costs (the "**Province Contribution Amount**");

**AND WHEREAS** the Province Contribution Amount is approximately One Million Dollars (\$1,000,000.00);

**AND WHEREAS** the Village of Caroline has requested that Clearwater County provide One Million Dollars (\$1,000,000.00) in interim financing to be used by the Village of Caroline to fund the Project costs in the event that the Province Contribution Amount has not been received by the Village of Caroline within the time frame that the Village of Caroline is contractually obligated to pay contractors working on the Project and the Village of Caroline has no other available funds for the Project (the "**Loan Amount**");

**AND WHEREAS** the Village of Caroline is a "non-profit organization" within the meaning of Section 241(f)(iii) of the *Municipal Government Act*, R.S.A. 2000 Chapter M-26, as amended;

**AND WHEREAS** Clearwater County Council considers that the Loan Amount will be used for a purpose that will benefit Clearwater County on the basis that the Village of Caroline's Main Street (Provincial Highway 54) handles regional traffic including traffic from and to Clearwater County;

**NOW THEREFORE** the Council of Clearwater County, duly assembled, hereby enacts as follows:

**1. Name of the Bylaw**

- a. This bylaw may be cited as the "Village of Caroline Interest Free Interim Financing Loan Bylaw".

**2. Definitions**

- a. **Costs** means costs incurred by the Village of Caroline in the Project;
- b. **Council** means the Clearwater County Council;
- c. **Loan** means the loan from Clearwater County to the Village of Caroline in the maximum amount of One Million Dollars (\$1,000,000.00) to be used by the Village of Caroline to fund the Project costs;
- d. **Loan Agreement** means that agreement attached to this Bylaw as Schedule "A";
- e. **Loan Amount** means One Million Dollars (\$1,000,000.00); and
- f. **Project** means the Village of Caroline Main Street (Provincial Highway 54) paving project.



**3. Terms of Loan**

- a. Clearwater County will lend to the Village of Caroline the Loan Amount for the purpose of funding the Costs.
- b. The applicable interest rate is 0.0%.
- c. The Loan Amount will be repaid by the Village of Caroline in full upon the earlier of:
  - i. Receipt by the Village of Caroline of the Province Contribution Amount; or
  - ii. December 31, 2016.

(the "Due Date")

in accordance with the terms of the Loan Agreement.

- d. Clearwater County and the Village of Caroline shall enter into the Loan Agreement.
- e. Any portion of the Loan Amount which is not used by the Village of Caroline for the purposes set out in this Bylaw or the Loan Agreement shall be immediately returned to Clearwater County.

**4. Source of Loan Amount**

- a. The source of the Loan Amount is the "Tax Rate Stabilization Reserve Account" held by Clearwater County. All repayments received from the Village of Caroline shall be returned to this reserve account.

**5. Effective Date**

- a. This Bylaw comes into full force and effect upon it receiving third reading.

\_\_\_\_\_ **MOVED** first reading of Bylaw 2016-\_\_ on the \_\_\_\_ day of \_\_\_\_\_, 2016 in a duly assembled Council meeting and this motion was

\_\_\_\_\_

\_\_\_\_\_ **MOVED** second reading of Bylaw 2016-\_\_ on the \_\_\_\_ day of \_\_\_\_\_, 2016 in a duly assembled Council meeting and this motion was

\_\_\_\_\_

\_\_\_\_\_ **MOVED** permission for third and final reading of Bylaw 2016-06 on the \_\_\_\_ day of \_\_\_\_\_, 2016 in a duly assembled Council meeting and this motion was

\_\_\_\_\_

\_\_\_\_\_ **MOVED** third and final reading of Bylaw 2016-\_\_ on the \_\_\_\_ day of \_\_\_\_\_, 2016 in a duly assembled Council meeting and this motion was

\_\_\_\_\_

\_\_\_\_\_  
**Reeve**

\_\_\_\_\_  
**Chief Administrative Officer**

## Schedule "A"

Loan Agreement

**THIS LOAN AGREEMENT** entered into as of the \* day of \*, 2016

**BETWEEN:**

**CLEARWATER COUNTY**

a municipal corporation pursuant to the *Municipal Government Act*, R.S.A. 2000 Chapter M-26

(hereinafter referred to as the "**Lender**")

- and -

**VILLAGE OF CAROLINE**

a municipal corporation pursuant to the *Municipal Government Act*, R.S.A. 2000 Chapter M-26

(hereinafter referred to as the "**Borrower**")

**WHEREAS** the Borrower has requested that the Lender lend to the Borrower amounts up to the aggregate amount of ONE MILLION (\$1,000,000.00) DOLLARS;

**AND WHEREAS** the Lender agrees to make the aforementioned loan on the terms and subject to the conditions hereinafter set forth;

**NOW THEREFORE THIS AGREEMENT WITNESSETH THAT**, in consideration of the mutual covenants and agreements hereinafter set forth, the parties hereto covenant and agree with each other, except as otherwise stated, as follows:

**1.0 Loan**

**1.1** The Borrower acknowledges the Lender shall advance to the Borrower, from time to time in one or more advances, funds to a maximum sum of ONE MILLION (\$1,000,000.00) DOLLARS (Cdn.) (the "**Loan**"). The Borrower shall provide the Lender with the amount of each advance required from time to time.

**1.2** The Borrower acknowledges and agrees that it shall use all other funds available to the Borrower for the purpose of funding the Village of Caroline Main Street (Provincial Highway 54) paving project (the "**Project**") before making a request to the Lender for an advance in accordance with Paragraph 1.1 including but not limited to funds available for the Project held by the Borrower and funds received from the Province of Alberta by the Borrower (the "**Province Contribution Amount**").

**1.3** The Borrower promises to pay to the Lender the aggregate amount of the Loan, together with interest on the Loan calculated from the date of each advance on the advance, at a rate equal to zero percent (0%) per annum both before and after maturity, default and judgment, calculated daily and compounded and payable annually, on the earlier of:

**1.3.1** within 30 days of receipt of the Province Contribution Amount by the Borrower;  
or

**1.3.2** December 31, 2016.

**1.4** Notwithstanding the foregoing, the Borrower may prepay any portion of the Loan at any time without penalty or bonus.

**2.0 Security**

**2.1** There will be no security granted by the Borrower for the repayment of the Loan and the performance of all of the Borrower's obligations under this Agreement.

**3.0 Use**

- 3.1** The Loan is to be used exclusively for the costs incurred by the Borrower in relation to the Village of Caroline Main Street (Provincial Highway 54) paving project (the "**Project**").
- 3.2** Any portion of the Loan which is not used by the Borrower for the Project shall be immediately repayable to Clearwater County.

**4.0 General**

- 4.1** The Borrower agrees to pay to the Lender all expenses, including legal expenses, on a solicitor-client full indemnity basis, incurred by the Lender in enforcing payment of the Loan, as set out in Section 1.3 hereof.
- 4.2** Each of the parties shall, upon the reasonable request of the other party, make, do, execute or cause to be made, done, or executed all such further and other lawful acts, deeds, things, documents and assurances of whatsoever nature and kind for the better or more perfect or absolute performance of the terms and conditions of this Agreement.
- 4.3** This Agreement shall enure to the benefit of and shall be binding upon the parties hereto and their respective successors and assigns. The Borrower shall not assign this Agreement without the prior written consent of the Lender. The Lender may assign this Agreement without the consent of the Borrower.
- 4.4** Time shall be of the essence of this Agreement.
- 4.5** This Agreement shall be governed by and construed in accordance with the laws of the Province of Alberta and the federal laws of Canada applicable therein.
- 4.6** This Agreement may be executed in one or more counterparts by facsimile or by PDF electronic transmission, each of which shall be deemed to be original and which counterparts together shall constitute one and the same agreement of the parties hereto.
- 4.7** Each of the provisions contained in this Agreement is distinct and severable and a declaration of invalidity or unenforceability of any such provision or part by a court of competent jurisdiction shall not affect the validity or enforceability of any other provision of this Agreement.
- 4.8** The division of this Agreement into articles, sections and subsections and the insertion of headings is for convenience of reference only and shall not affect the interpretation of this Agreement.
- 4.9** The Borrower acknowledges that it has had the opportunity to receive independent legal advice with regard to this Agreement, and confirms that it has received such advice or voluntarily waived such right.
- 4.10** All notices sent pursuant to the terms of this Agreement shall be served by one of the following means:
- a)** Personally, by delivering it to the party on whom it is to be served at the address set out herein, provided that such delivery shall be made during normal business hours (8:30 a.m. - 4:30 p.m. on a normal business day excluding weekends and statutory holidays). Personally delivered notice shall be deemed received when actually delivered as aforesaid;
  - b)** By facsimile or email or by any other like method by which a written or recorded message may be sent, directed to the party upon whom it is to be served at that address set out herein. Notice so served shall be deemed received on the earlier of:
    - i)** Upon transmission with answer back confirmation if received within the normal hours of the business day; or

- ii) At the commencement of the next ensuing business day following transmission with answer back confirmation thereof if not received within the normal hours of the business day;
- c) By single registered mail in a prepaid envelope. Notice shall be deemed received five (5) days after mailing. In the event of postal interruption, no notice sent by means of the postal system during or within seven (7) days prior to the commencement of such postal interruption or seven (7) days after the cessation of the postal interruption shall be deemed to have been received unless actually received.

**4.11** Notices shall be sent to the following addresses:

**(a) To the Lender:**

Clearwater County  
Box 550  
4340-47 Avenue  
Rocky Mountain House, AB T4T 1A4

Via Fax: 403-845-7330  
Via E-Mail: rleaf@clearwatercounty.ca

Attention: Chief Administrative Officer

**(b) To the Borrower:**

Village of Caroline  
5004-50 Avenue  
Caroline, AB T0M 0M0

Via Fax: 403-722-4050  
Via E-Mail: cao@caroline.ca

Attention: Chief Administrative Officer

**IN WITNESS WHEREOF** the parties have executed this Agreement under seal as evidenced by the signatures of their properly authorized officers and representatives in that behalf, as of the day and year first above written.

**CLEARWATER COUNTY**

\_\_\_\_\_  
Chief Elected Official

\_\_\_\_\_  
Chief Administrative Officer

**VILLAGE OF CAROLINE**

\_\_\_\_\_  
Chief Elected Official

\_\_\_\_\_  
Chief Administrative Officer



**BYLAW NO. 1016/16**

**A BYLAW** of Clearwater County, in the Province of Alberta, for the purpose of enacting an exemption from municipal taxes on property leased by the Rocky Rod and Gun Club.

**PURSUANT** to the Authority conferred upon it in Division 2 Section 364(1) of the Municipal Government Act, Revised Statutes of Alberta, 2000, Chapter M-26 and amendments thereto;

**WHEREAS**, a Council may by bylaw exempt from taxation under this Division, property held by a non-profit organization;

**WHEREAS**, a Council does not have authority to exempt such organization from paying its proportionate share of the annual Education and Rocky Seniors Foundation requisitions; and,

**WHEREAS**, Council at its meeting of January 26, 2016 heard the request for exemption from the Rocky Rod and Gun Club and passed resolution 031/16;

***That Council requests the preparation of a bylaw providing for the exemption of municipal property tax for the Rocky Rod and Gun Club. CARRIED 5/1***

**NOW, THEREFORE**, upon compliance with the relevant requirements of the Municipal Government Act, the Council of the Clearwater County, Province of Alberta, duly assembled, enacts as follows:

***THAT the property leased by the Rocky Rod and Gun Club as defined in Schedule A attached to Bylaw 1016/16, be exempt from municipal taxes but not from levies associated with Education or Seniors Housing.***

READ A FIRST TIME this 24 day of May A.D., 2016.

\_\_\_\_\_  
REEVE

\_\_\_\_\_  
CHIEF ADMINISTRATIVE OFFICER

READ A SECOND TIME this    day of    A.D., 2016.

READ A THIRD AND FINAL TIME this day    of    A.D., 2015.

\_\_\_\_\_  
REEVE

\_\_\_\_\_  
CHIEF ADMINISTRATIVE OFFICER

Schedule A

Bylaw 1016/16

List of properties leased by the Rocky Rod & Gun Club

The Rocky Rod and Gun club has lease REC2818 which contains the legals of:

NE24-38-8-5

NW24-39-8-5

NE25-39-8-5

NW25-39-8-5

SE25-39-8-5

SW25-39-8-5

SE36-39-8-5

SW36-39-8-5

The parcels are vacant other than SE25-39-8-5



## AGENDA ITEM

<b>PROJECT: Municipal Inspection</b>		
<b>PRESENTATION DATE: June 14, 2016</b>		
<b>DEPARTMENT:</b> Municipal	<b>WRITTEN BY:</b> Ron Leaf	<b>REVIEWED BY:</b> Ron Leaf
<b>BUDGET IMPLICATION:</b> <input type="checkbox"/> N/A <input type="checkbox"/> Funded by Dept. <input type="checkbox"/> Reallocation		
<b>LEGISLATIVE DIRECTION:</b> <input type="checkbox"/> None <input checked="" type="checkbox"/> Provincial Legislation (cite) <input type="checkbox"/> County Bylaw or Policy (cite)		
<b>STRATEGIC PLAN THEME:</b>	<b>PRIORITY AREA:</b>	<b>STRATEGIES:</b>
<b>ATTACHMENT(S):</b> Appendix B – Services – AB Municipal Affairs’ Request for Proposal for Municipal Inspection		
<b>REQUEST FOR DIRECTION:</b> That Council advises whether it wishes to: <ol style="list-style-type: none"> <li>1) Request that the Minister of Municipal Affairs undertake a municipal inspection; <b>or</b></li> <li>2) Direct staff to prepare a Request for Proposal for a Council directed municipal inspection</li> </ol>		

### BACKGROUND:

At their May 24, 2016 meeting Council requested information pertaining to the scope of review undertaken by AB Municipal Affairs during a Section 571 municipal inspection. Attached is “Appendix B – Services” from Municipal Affairs’ municipal inspection RFP document. Based on a review this excerpt I suggest that the focus of a Municipal Affairs’ inspection would be:

- Governance:
  - A review of:
    - The functioning of Council as a leadership body providing strategic direction;
    - Council’s decision making processes, including evaluation of bylaws and key policies;
    - Councilors understanding of roles and responsibilities;



- The current working relationships amongst councilors and between Council and administration.

#### Operations:

##### An assessment of:

- The budgeting process, financial operations, and financial controls;
- Administrative processes and policies;
- The current financial position of the municipality;
- Council meetings for efficiency and effectiveness.

- Structure:

##### An assessment of

- Whether current municipal employees have the capacity to carry out their duties as required;
- The overall organizational model looking at:
  - size,
  - reporting relationships, and responsibilities;
- To evaluate the use of committees and determine if they are operating effectively.

From discussions with Municipal Affairs I understand that the timeframe for a Municipal Affairs inspection is approximately 12 – 16 months. This timeline is consistent with my review of the four recently released inspection reports.

I found the following excerpt from the Brazeau County inspection (March 2016) insightful:

*“It is important to place some context to the Inspection process. Municipalities have “natural person powers”, meaning that they have the ability and discretion to make and enact decisions on their own behalf; subject to the limitations of legislation. In addition, checks already exist on the power of Council and the municipality through the election process, and through existing legal remedies. It is therefore important to acknowledge that:*

- *Inspections are not a “balance of opinion” process. This is not a vote. Hearing the same concern from multiple people does not make it right. Nor does hearing that people are happy with a decision of Council necessarily make it a “good” decision.*

- *This is not a referendum on Council. Residents elect their Council for a period of four years. At the conclusion of the four year term, residents may choose to retain or change their elected officials based on the perceived performance of Council.*
- *The Inspector does not arbitrate individual disputes between Council or the Municipality and interested stakeholders. If a resident or organization believes that they have a legitimate complaint against a decision of Council, the municipality, or a municipally controlled entity that has caused them harm, legal remedies exist through the court system. Inspections do not replace that legal remedy<sup>1</sup>.*

**Recommendation:**

Should Council wish to proceed with a municipal inspection, Administration recommends that Council submit a request to the Minister pursuant to Section 571(b) of the MGA.

**APPENDIX B– Services**

In accordance with any service requirements specified below, the Province requires the Contractor to perform the following:

**1. Services**

a) The Contractor shall provide an inspection of the (“Municipality”) in accordance with Section 571 of the *Municipal Government Act (MGA)*, including but not limited to:

- a review and evaluation of bylaws and key policies for adequacy, relevancy, consistency, and conformity with legislation;
- a review and evaluation of the structure of council committees;
- a review and evaluation of the organizational structure of the municipal administration;
- a review and evaluation of the process and procedures used to prepare for council meetings;
- a review and evaluation of councils’ understanding of their role and responsibilities;
- a review and evaluation of the CAO’s understanding of his role and responsibilities;
- attendance at, and evaluation of, the conduct of a council meeting;
- a review and evaluation of the process for preparing and approving council meeting minutes, and a review of recent minutes;
- a review of key planning documents, bylaws and planning and development processes;
- a review and evaluation of the financial status of the municipality;
- a review and evaluation of the financial reporting to council;
- a review and evaluation of the budget process;
- a review of major proposed or active capital projects;
- a comparative analysis of the property assessment and tax rates with similar municipalities;
- a review and evaluation of public engagement and communication policies and procedures;
- interviews with all members of council and the CAO;
- interviews with staff; and
- Interviews with the petition representative and a sample of residents.

b) After the completion of the inspection, the inspector must submit a written draft report to the Minister, for review and consideration. The draft report should include, but is not limited to:

- Description of the legislative basis for inspections and the specific authorization for the inspection;

- Description of the municipality, including the types and means of services delivered;
  - Description and analysis of the council and committee structure;
  - Description and analysis of the administrative organization structure;
  - Results of the inspection process;
  - Identification of any instances of inappropriate actions, processes, or procedures;
  - Identification of circumstances that indicate any non-compliance with legislation, bylaws, or policies;
  - Identification of any instances of misconduct of councilors or administration;
  - Identification of any improvident, improper, or irregular matters; and
- Municipal Affairs Request for Proposals CB2016-01-RMH Appendix B- Services  
January 22, 2016 33
- Any recommendations to the Minister to address results of the inspection process.
- c) After the Contract Manager provides the inspector with comments on the draft report, the inspector must submit a written final report to the Minister, for the Minister's review and consideration.
- d) Once the report is approved by the Minister, the inspector will present the report to the council and public at a public meeting.



## AGENDA ITEM

<b>PROJECT:</b> May 30 open house meeting follow up		
<b>PRESENTATION DATE:</b> June 14, 2016		
<b>DEPARTMENT:</b> Municipal	<b>WRITTEN BY:</b> Christine Heggart	<b>REVIEWED BY:</b> Ron Leaf
<b>BUDGET IMPLICATION:</b> <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Funded by Dept. <input type="checkbox"/> Reallocation		
<b>LEGISLATIVE DIRECTION:</b> <input checked="" type="checkbox"/> None <input type="checkbox"/> Provincial Legislation (cite) <input type="checkbox"/> County Bylaw or Policy (cite) Bylaw: _____ Policy: _____		
<b>STRATEGIC PLAN THEME:</b> Well Governed and Leading Organization	<b>PRIORITY AREA:</b> Advocacy 2.3 – Facilitate community engagement in planning and decision-making.	<b>STRATEGIES:</b> 2.3.1 – Inform and educate the community regarding Council's key priorities, projects and programs.
<b>ATTACHMENT(S):</b>		
<b>RECOMMENDATION:</b> That Council reviews, amends and confirms as appropriate key discussion areas to direct citizen engagement plans in terms of joint development area, new building and economic development initiatives.		

### BACKGROUND:

Council hosted an open house meeting to introduce the concept of the proposed new administration and operations building (May 30, 2016), with approximately 300 people in attendance. At that meeting Council committed to following up with the community in the coming weeks or months. As staff begins developing a more detailed communication and citizen engagement strategy, staff believes the following items summarize the key areas of interest or concern:

- 1) Relationship of building to Joint Development Area involving the Town of Rocky Mountain House
- 2) More detail on new building design, construction timelines and potential for more phased development of the property
- 3) Financing plans associated with the development, including impact on reserves
- 4) More detail on relationship of the development to Council's regional economic development and economic diversification plans

Subject to Council's approval of the key discussion areas, staff will provide a more detailed communication and citizen engagement process.

Clearwater County  
Councilor and Board Member Remuneration Statement

For the Year of ...2016..

Name of Councilor / Board Member .....**Pat Alexander**.....

Payment Periods

January                      February                      May                      June  
March                      **April**                      July                      August  
September                      October                      November                      December

Supervision Rate – \$550.00 Monthly  
Reeve Supervision Rate - \$850.00 Monthly

Date	Type of Meeting Attended	First 4 Hours \$159.00	Next 4 Hours \$126.00	Next 4 Hours \$126.00	Regular Council Meeting \$288.00	Lunch \$16.00	Mileage @ \$0.54 / km
Apr 1	<b>Council workshop</b>	X	X				74
Apr 1	<b>Cummunity Partnership Car.</b>			X			109
Apr 9	<b>Ag Society Agm</b>	X					59
Apr 11	<b>NSWA Conf. Call</b>	X					
Apr 12	<b>Council</b>				X		74
Apr 13	<b>RPAP</b>	X					74
Apr 14	<b>Airport</b>	X					74
Apr 15	<b>Volunteer Luncheon</b>	X					74
Apr 18	<b>A+P</b>				X		74
Apr 19	<b>RCMP Review</b>	X					74
Apr 20	<b>NSWA</b>	X	X	X		X	382
Apr 25	<b>Broad Band</b>	X	X				74
Apr 26	<b>Council</b>				X		74
Apr 27	<b>Meet with Mayor</b>	X					74
Apr 28	<b>NSWA NGO Forum</b>	X	X	X		X	385

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**Remuneration Calculation**

<u>11</u>	Meetings @ \$159.00=	<u>1749.00</u>	<u>1675</u>	Kms @ \$0.54=	<u>904.50</u>
<u>7</u>	Meetings @ \$126.00=	<u>882.00</u>	<u>2</u>	Lunch @ \$16.00=	<u>32.00</u>
<u>3</u>	Meetings @ \$288.00=	<u>864.00</u>		Hotel 1 night =	<u>506.28</u>
	Supervision=	<u>850.00</u>			
	<b>TOTAL=</b>	<u>4345.00</u>		<b>TOTAL=</b>	<u>1442.78</u>

The Westin Edmonton  
 10135 100 St  
 Edmonton, AB T5J 0N7  
 Canada  
 Tel: 780-426-3636 Fax: 780-428-1454

Patrick Alexander	Page Number :	1	Invoice Nbr:	27684202
P.o. Box 550	Guest Number:	1033128	Arrive Date:	03-MAY-16 20:35
Rocky Mountain House, AB T4T 1A4	Folio ID :	A	Depart Date:	05-MAY-16 10:41
Canada	No. Of Guest:	1		
	Room Number :	1215		
Email: THAIGHT@CLEARWATERCOUNTY.CA	Room Rate :	189.00		
AE03AA - Alberta Land Use Inte	Club Account:			
	AR Account :	33394	- Alberta Land Use Inter	

## Tax Invoice

Tax ID: 815461330RT0001  
 The Westin Edmonton 05-MAY-16 10:41 BRADSMO

Date	Reference	Description	Charges	Credits
03-MAY-16	RT1215	Room Charge	189.00	
03-MAY-16	RT1215	GST	9.73	
03-MAY-16	RT1215	Destination Marketing Fee	5.67	
03-MAY-16	RT1215	Tourism Levy	7.79	
03-MAY-16	RT1215	Parking Valet	39.00	
03-MAY-16	RT1215	GST	1.95	
04-MAY-16	RT1215	Room Charge	189.00	
04-MAY-16	RT1215	GST	9.73	
04-MAY-16	RT1215	Destination Marketing Fee	5.67	
04-MAY-16	RT1215	Tourism Levy	7.79	
04-MAY-16	RT1215	Parking Valet	39.00	
04-MAY-16	RT1215	GST	1.95	
05-MAY-16	VI	Visa-3314		-506.28
		** Total	506.28	-506.28
		*** Balance	0.00	

Continued on the next page

The Westin Edmonton  
 10135 100 St  
 Edmonton, AB T5J 0N7  
 Canada  
 Tel: 780-426-3636 Fax: 780-428-1454

Patrick Alexander	Page Number : 2	Invoice Nbr: 27684202
P.o. Box 550	Guest Number: 1033128	Arrive Date: 03-MAY-16 20:35
Rocky Mountain House, AB T4T 1A4	Folio ID : A	Depart Date: 05-MAY-16 10:41
Canada	No. Of Guest: 1	
	Room Number : 1215	
Email: THAIGHT@CLEARWATERCOUNTY.CA	Room Rate : 189.00	
AE03AA - Alberta Land Use Inte	Club Account:	
	AR Account : 33394 - Alberta Land Use Inter	

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EXPENSE SUMMARY REPORT

Date	Tour Levy	Other	Phone	Room	Payment	GST
	-----	-----	-----	-----	-----	-----
Total						

Date	Total	Food\Bev
	-----	-----
Total		



# Clearwater County

## Councilor and Board Member Remuneration Statement

For the Year of ...2016.....

Name of Councilor / Board Member EARL GRAHAM

Payment Periods

January                      February                      May                      June  
 March                          April                          July                          August  
 September                      October                      November                      December

Supervision Rate – \$550.00 Monthly  
 Reeve Supervision Rate - \$850.00 Monthly

Date	Type of Meeting Attended	First 4 Hours \$159.00	Next 4 Hours \$126.00	Next 4 Hours \$126.00	Regular Council Meeting \$288.00	Lunch \$16.00	Mileage @ \$0.54 / km
May 10/16	COUNCIL				✓		92
May 10/16	AG SOCIETY				✓		22
May 17/16	JOINT IDP	✓					92
* May 15/16	WESTVIEW						
May 24/16	COUNCIL				✓		92
May 26/16	SERVICE / POTENTIAL	✓					92
May 30/16	Open House	✓					<del>45.92</del>
May 12/16	MPC	✓	✓				92

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### Remuneration Calculation

1	@ 79 (Westview) =	79.00			
4	Meetings @ \$159.00=	636.00	527	Kms @ \$0.54=	284.58
2	Meetings @ \$126.00=	252.00	0	Lunch @ \$16.00=	0
2	Meetings @ \$288.00=	576.00			
	Supervision=	550.00			
	<b>TOTAL=</b>	<u>2093.00</u>		<b>TOTAL=</b>	<u>284.58</u>

Signature {Councilor / Board Member} Earl Graham

# Clearwater County

## Councilor and Board Member Remuneration Statement

For the Year of ....2016.....

Name of Councilor / Board Member ..... Curt Mak .....

Payment Periods

January                      February                      May                      June  
 March                          April                          July                          August  
 September                      October                      November                      December

Supervision Rate – \$550.00 Monthly  
 Reeve Supervision Rate - \$850.00 Monthly

Date	Type of Meeting Attended	First 4 Hours \$159.00	Next 4 Hours \$126.00	Next 4 Hours \$126.00	Regular Council Meeting \$288.00	Lunch \$16.00	Mileage @ \$0.54 / km
May 4	Firehall Community mtg	✓					40
May 9	IDP	✓					70
10	Council				✓		70
11	CTI into meeting	✓					114
12	Spog	✓					78
17	Joint meeting JDA	✓					70
24	Council				✓		70
26	Opn / Gov Interview	✓					70
26	CFCA		✓				110
30	Open House	✓					88

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### Remuneration Calculation

<u>7</u>	Meetings @ \$159.00=	<u>1113.00</u>	<u>780</u>	Kms @ \$0.54=	<u>421.20</u>
<u>1</u>	Meetings @ \$126.00=	<u>126.00</u>	<u>0</u>	Lunch @ \$16.00=	<u>0</u>
<u>2</u>	Meetings @ \$288.00=	<u>576.00</u>			
	Supervision=	<u>550.00</u>			
	<b>TOTAL=</b>	<u>2365.00</u>		<b>TOTAL=</b>	<u>421.20</u>

Signature {Councilor / Board Member} ..... Curt Mak .....