



Mackenzie County

COMMITTEE OF THE WHOLE MEETING AGENDA

JANUARY 23, 2018

10:00 A.M.

COUNCIL CHAMBERS
FORT VERMILION, AB

**MACKENZIE COUNTY
COMMITTEE OF THE WHOLE MEETING**

**Tuesday, January 23, 2018
10:00 a.m.**

**Fort Vermilion Council Chambers
Fort Vermilion, Alberta**

AGENDA

1. Delegation – Tom Hoffman, Tolko (10:00 a.m.)
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Mackenzie County

REQUEST FOR DIRECTION

Meeting:	Committee of the Whole Meeting
Meeting Date:	January 23, 2018
Presented By:	Byron Peters, Deputy Chief Administrative Officer
Title:	Cannabis & Land Use Bylaw

BACKGROUND / PROPOSAL:

Alberta Cannabis Legislation was passed on November 30, 2017. The policy objectives are as follows:

1. Keeping cannabis out of the hands of children and youth
2. Protecting public health
3. Promoting safety on roads, in workplaces and in public spaces
4. Limiting the illegal market of cannabis

In addition to the legalization of the product the province will be issuing support regulations about the sale of cannabis, including licensing criteria and other rules for private retailers and the legislation around taxing authority and further measures to address workplace safety issues.

It is mentioned in the Alberta Cannabis Framework that municipalities may create additional restrictions on public consumption using their existing authorities as stated in Section 10 of the Tobacco and Smoking Reduction Act:

- 10(1) Nothing in this act affects a municipality’s power to make bylaws to regulate, restrict or prohibit smoking.
- (2) Where there is conflict between a provision of this Act and a provision of a municipal bylaw that regulates or restricts or prohibits smoking, the more restrictive provision prevails.

The municipality is responsible for retail location and rules, public consumption and land use regulation, zoning and licensing. This would include the use of Cannabis Retailer/Distributor and potentially, Cannabis Grower (federally regulated).

Author: C Smith Reviewed by: BP CAO: _____

Depending on location of cannabis retailers, the most practical zoning would be Direct Control 1 (Council as Development Authority on the matter) or as a discretionary use in a commercial area which would give the Municipal Planning Commission Development Authority.

According to FCM, it is recommended that the local public is consulted on the issue.

There is currently limited information on the issue.

- Minimum age of sale is 18
- The Alberta Liquor and Gaming Commission will oversee and manage wholesales and distribution. Licenced growers will be regulated by the federal government.
- Smoking and vaping will be restricted from areas frequented by kids and other public places where smoking is prohibited.
- Driving under the influence of cannabis will have the same penalties as alcohol.
- Working under the influence of cannabis is viewed the same as with alcohol.
- Adults will be allowed to possess up to 30 grams of cannabis, it must be in closed secure packaging when transporting.
- There is a zero tolerance for youth who possess more than 5 grams and will be subjected to criminal charges.
- Albertans will be allowed to consume cannabis in their homes and public places where smoking is allowed, but use is banned in vehicles.
- To legally purchase cannabis the consumer has two options: privately run retail stores and government operated online sales.
 - Privately run operations will be subject to government regulations as set forth by the AGLC and will be required to be licensed. Product must come from a government related distributor.
 - All physical retail locations will have strict government oversight through licensing by the AGLC. The AGLC will be able to set terms and conditions on licences, as well as inspect licensees and address any violations. This will help ensure private cannabis retailers operate responsibly and lawfully.
 - Licensed retail establishments will be the only stores that can sell cannabis, and will not be able to sell cannabis if they sell alcohol, tobacco or pharmaceuticals.
 - The provincial government will establish rules that guide hours of operation and location of stores (for example, the minimum distance retail outlets must be from schools, community centres, liquor stores and each other), age of staff and training, and controlling initial growth in the number of outlets.

Author: CS Reviewed by: BP CAO: _____

- Staff who work at cannabis retail outlets would have to be at least 18 years of age and have appropriate training to educate customers about the potency of products and the risks associated with cannabis use. Staff must also be trained to uphold the rules around the purchase of cannabis, including checking customers' identification to make sure they are of legal age.
- Consumer education will be embedded in the retail of cannabis, and retail outlets will display point-of-purchase signage and other materials to educate customers about risks and making responsible choices about cannabis.

OPTIONS & BENEFITS:

For discussion.

COSTS & SOURCE OF FUNDING:

N/A

COMMUNICATION:

N/A

RECOMMENDED ACTION:

For review and discussion.

Author: CS Reviewed by: BP CAO: _____



Mackenzie County

REQUEST FOR DIRECTION

Meeting:	Committee of the Whole Meeting
Meeting Date:	January 23, 2018
Presented By:	Doug Munn, Director of Community Services
Title:	Recycling Program

BACKGROUND / PROPOSAL:

The Public Works Committee discussed the idea of implementing a recycling program in the County on December 6, 2017 and made the following motion:

MOTION PW-17-12-038 MOVED by Councillor Cardinal
 That the Recycling Program be tabled to a Council Meeting.
CARRIED

The 2018 Budget plans to carry forward \$15,000 in non-TCAs to purchase a compactor and for composting at Waste Transfer Stations, however there were no details as to how these programs would be implemented and so this was not completed in 2017. There is currently a composting program in La Crete for yard waste. The County also recycles residential steel, tires, oil, electronics, batteries, paint and plastic chemical jugs. The products that we currently recycle are done in conjunction with the Alberta Recycling Council and are generally considered “hazardous products” with the exception of steel, which is dealt with through local entrepreneurs. It is our intent to prepare a Request for Proposal (RFP) for the disposal of steel products in January 2018.

Some of the more common items that can be recycled include cardboard, recyclable plastics, organics, glass, newspaper and paper. The advantages and disadvantages of recycling are outlined in the attached article. For the County, one of the main advantages is to reduce the amount of waste that is sent to the landfill, which will extend the life of each cell at the landfill and therefore reduce costs.

If council has a desire to expand our recycling program it would be helpful to have some direction and support.

Author: _____ Reviewed by: _____ CAO: _____

The following was copied from an Alberta municipality:

Our “**Sustainability Strategy**” is:

- Maximize recycling and the use of recycled materials, while reducing the consumption of all materials wherever possible
- Provide information and liaise with our customers and suppliers to promote the best possible environmental practices
- Seek methods of diverting waste from the Regional Landfill where possible

Our **Sustainable Materials Management** objectives are to:

1. Audit waste streams and effectively track, manage and report the amount of waste and recycling generated from the property (s).
2. Implement suitable programs to encourage reusing, reducing and recycling to minimize waste generation and maximize the diversion of waste to recycling opportunities.
3. Encourage the participation of tenants, vendors and suppliers in the resource conservation and waste management program.
4. Develop and maintain an inventory of the wastes generated, diverted, and disposed with the ultimate goal of reporting the GHG emissions (generated and avoided) that are associated with the property’s sustainable materials management practices.
5. Achieve continual improvement by implementing best practices and participate in new government / industry sustainable materials management initiatives.

Proposal:

1. Proposed goals to reuse, reduce and recycle. What is reasonable at this point?
Some ideas include:
 - Encourage residents to compost (some municipalities have identified that 68% of household waste was organics)
 - Begin collection of cardboards at Waste Transfer Stations AND/OR work with local recyclers to collect cardboard and other recyclables
 - Begin an education campaign for residents which encourages recycling (Reduce, Reuse, Recycle)
 - Hire a company to come in and do a waste audit and make recommendations on recycling programs. (which products make up the bulk of our waste)
 - Work with the Regional Land Fill Commission to reduce waste going to the landfill.

COSTS & SOURCE OF FUNDING:

There is \$15,000 in the 2018 Non-TCA budget that is dedicated to a compactor and to composting. It would be possible, through council resolution, to reallocate these funds to another project.

- Certain types of recycling such as cardboard will require specialized waste bins.
- Encouraging offices to collect and recycle paper is a low cost option
- Encouraging residents to compost will require a media campaign focusing on education and gaining support for the program
- Waste audit will require \$12,000.

Author: Doug Munn Reviewed by: _____ CAO: _____

SUSTAINABILITY PLAN:

COMMUNICATION:

RECOMMENDED ACTION:

Review proposal and provide administration with some direction to move forward with a recycling program.

Author: Doug Munn Reviewed by: _____ CAO: _____

Renewable Resources Coalition – December 2016

Almost no one doubts that recycling has its benefits. The primary question then becomes, “is it worth it?”

Recycling is considered one of the best things we can do as individual citizens to decrease pollution on our planet. It’s notably very environmentally friendly, and it reduces our energy consumption on a global scale.

There are quite a few other benefits to recycling as well, which we’ll get into in the paragraphs to follow. We will also be taking a closer look at the few advantages listed above.

Without any further ado, we present to you the advantages of recycling.

Advantages

1.Reduce Energy Consumption

This first benefit is what catapults recycling into the discussion of green energy. As humans, our demand for energy is ever-increasing. This continues to be the case as more countries are being modernized and introduced to the wonderful world of technology.

Recycling plays its part in the green energy debate by reducing the amount of energy required to manufacture certain products. This reduces greenhouse gas emissions generated by the manufacturing process and lowers global energy consumption. As consumers, you’ll be happy to know that you immediately see the impact through lower prices.

When you recycle, you also eliminate the need for manufacturers to acquire raw materials through processes such as mining and refining. They’ve already got the material they need from you, so it’s just a matter of repurposing it.

2. Decreased Pollution.

Coke bottles, soda cans, and those plastic ring holders. What do all of them have in common?

They’re categorized as industrial waste, which is the primary source of pollution to our planet in today’s world.

By recycling, you drastically reduce the amount of industrial waste. Instead of those soda cans going into a landfill to clutter the Earth, they’re taken back to the manufacturer to be broken down and reused.

The less waste we throw onto the planet, the cleaner and safer it will be for future generations to come.

3. Considered Very Environmentally Friendly.

The Amazon rain forest continues to be [bulldozed over in record amounts](#). Why? To make more of our precious paper products.

Recycling is an act that can heavily impact the deforestation problem on Earth. Recycled paper products mean less trees that need to be cut down and processed.

Author: Doug Munn **Reviewed by:** _____ **CAO:** _____

This alone is one of the major reasons pro-recyclers feel so empowered chucking their used materials into that blue bin. Every time you do it, you're potentially saving a tree from being cut down.

4. Slows the Rate of Resource Depletion.

Sooner or later, the Earth is going to run out of raw materials. It might not be for a long while, but the concern is still there.

By recycling, you limit the need to mine and use those raw materials to make new products. Instead, your recycled material is used.

Can you imagine how many natural resources we would conserve if everybody on the planet recycled?

5. Fights Global Warming.

Global warming continues to be a heated debate topic across the planet.

We've already mentioned earlier one way that recycling reduces greenhouse gas emissions. The other way is by reducing the amount of waste that's burned when it's time to clear some space.

Burning piles of waste leads to toxic emissions, which accelerates the rate at which our planet is warming up.

By recycling, less material becomes waste that needs to be burned, and it's instead used in ways that are much more beneficial to the environment.

6. Decreases Landfill Waste.

We've already indirectly mentioned it a couple of times through the advantages, but we feel it deserves its own spot in the limelight.

Recycling used products means less trash into landfills. This is a very good thing since landfills slowly destroy the natural environment. Simply put, we don't want them to keep growing.

Already existing recycling programs prevent tons of waste from being dumped into landfills each year, and they're only getting better.

Disadvantages

Now let's get into the interesting side of recycling.

Mostly everyone knows at least something about its advantages, but not many understand its disadvantages.

Like any topic worthy topic of debate, there are both positives and negatives to consider.

Recycling isn't always a cost effective option. It's similar to wind and solar in that it's benefits are well-known, but it's just not the most financially appealing choice.

There's also a quality issue to consider. Recycled products aren't as durable as newly processed material. They don't last as long and tend to be of lesser quality.

These are just a few of the disadvantages that we'll discuss in more detail below.

1. Recycling Isn't Always Cost Effective.

There are many hidden costs and processes associated with recycling. After all, someone has to take the time handling recycled products.

Author: Doug Munn **Reviewed by:** _____ **CAO:** _____

In addition to trash simply going to a landfill, recycling adds a few other processes into the loop. There are the recycled goods that get sent to the manufacturers to repurpose. Then there are the ones that need to go to a new factory all-together.

That's an extra catch with recycling. In order to repurpose certain recycled materials, separate manufacturing plants need to be built and used. This would counteract the advantage recycling has of creating less pollution, since more may actually be generated as a result of the additional factory.

2. High Up Front Costs.

Let's just get the two financial issues out of the way first.

Establishing new recycling protocols often involves a high initial cost. Recycling isn't a process that just happens. There are units that need to be set up, factory upgrades that need to be made, and attaining trucks to haul the recycled material.

A recycling program can be a significant investment for an institution or facility to make. Is it worth it to eat the high costs to impact the planet in such a small way over a long period of time?

3. Needs More Global Buy-In.

Not many would argue that recycling is generally considered a good thing.

It is certainly a critical step that the global population has to make to reduce pollution, but there's a catch – a lot more people need to start participating.

Recycling is most often prevalent in homes, schools, and some office parks. The kind of recycling that occurs is putting used paper products into blue bins and hauling them away for reuse.

This impact is rather small compared to the massive amounts of waste and deforestation taking place on an industrial-type level.

As citizens of the world, it can be frustrating. We try to make an individual, positive contribution, but it fails in comparison to the widespread pollution in effect.

4. Recycled Products Are Often of Lesser Quality.

Let's say you're in the market for a new pair of running shoes. You could go to the store, grab a freshly made pair with a brand new sole, or you could find a nice used pair instead. Which do you think is going to last longer?

The same theory holds true for recycled products. Products made from used, repurposed materials simply don't stand up quality-wise to new material.

They're often fragile and overused. The more a piece of material gets recycled, the worse it gets.

5. Recycling Sites Are Commonly Unsafe.

Material thrown into the recycling bin is another form of trash. As with any waste, it has to be transported and processed somewhere.

This means creating additional locations of potentially hazardous waste. These heaps of trash are grounds for bacteria, disease, and a laundry list of other unsafe conditions.

In addition to this, recycling sites are also industrial plants. This means they are not without their own forms of pollution.

Author: Doug Munn **Reviewed by:** _____ **CAO:** _____

As is often the case with recycling sites, waste produced is frequently mixed with large bodies of water, leading to broader scale pollution. Quite the opposite effect of what recycling advocates are going for.

Conclusion

Hopefully the next time you find yourself in a heated debate about recycling, you're much better equipped to participate.

Recycling's advantages are more commonly known. It reduces our energy consumption on a global scale. It also decreases pollution, slows the rate of resource depletion, and contributes to fighting global warming.

The question usually isn't whether recycling is advantageous, but whether or not it's worth it.

As we've learned, recycling comes with high costs. More often than not, the long term benefits of recycling fail in comparison to the high initial investment. This is also due to the fact that recycling hasn't yet become the norm.

Until the majority of the global population accepts recycling, it's positive impact on the Earth will continue to be a topic of contention.

Where do you stand on the matter?



Mackenzie County

REQUEST FOR DECISION

Meeting:	Committee of the Whole Meeting
Meeting Date:	January 23, 2018
Presented By:	Doug Munn, Director of Community Services
Title:	Traffic Control Cameras Report

BACKGROUND / PROPOSAL:

Council has requested that administration research the use of red light cameras. Attached is a report that discusses this in detail and provides recommendations and options.

OPTIONS & BENEFITS:

COSTS & SOURCE OF FUNDING:

COMMUNICATION:

RECOMMENDED ACTION:

For review and discussion.

Author: D Munn Reviewed by: _____ CAO: _____

REPORT

DATE: December 15, 2017
TO: Council
FROM: Doug Munn, Director of Community Services
Ron Dyck, Bylaw and Safety Officer
Subject: Traffic Control Cameras

Council has requested that administration research the use of red light cameras (photo enforcement). Information gathered from our inquiries regarding photo enforcement has brought us to the conclusion that Mackenzie County does not qualify under Provincial Guideline's for Photo Enforcement. The standard to qualify us is based on having our own contracted police service paid entirely by Mackenzie County. The peace officer and the enhanced positions that we currently pay for do not meet the criteria that the province has in place, and the Peace Officer is not a Police Officer.

This was the reply from the Province:

Alberta's Automated Traffic Enforcement Technology Guideline that provides direction to municipalities on the use of this technology. Presently, communities policed by the RCMP under a municipal policing contract or communities **with their own police service** have the ability to use automated traffic enforcement technology within their municipal Boundaries (Section C). Enhanced RCMP positions do not equate to a RCMP municipal policing contract.

With regards to the current review of this technology by Alberta Transportation, I do not believe that this specific caveat will be changed to allow those municipalities to use this technology while under a provincial policing contract.

If you or your council have any further questions or require clarification please do not hesitate to contact me. Thank you.

Sean Bonneteau, CD
Director
Policing Standards and Audits
Registrar
Security Services and Investigators Program

There are still options available to our organization such as:

1. **Security Cameras** placed strategically in the areas of concern to be proactive and deter further problems. This option is not recommended for speeding and red light infractions however would be attractive for issues related to vandalism, stunting and similar issues. Cost: \$50,000.
2. **Traffic Monitoring Device** that shows the oncoming speeds as well as provides traffic counts. This has been proven effective to slow traffic down and gather information that would assist the Peace Officer in enforcement of traffic violations. This unit can be placed on a small trailer and moved

throughout communities benefiting both enforcement as well as the roads department. (See attached photo for example)

3. **Add another Peace Officer** this would allow for coverage through every weekend and during time off taken by having only one officer.

The peace officer program is relatively new and administration feels that given time the peace officer will be able to concentrate some effort into the red light issue and this will effectively reduce the number of infractions.

It is recommended that we allow our current peace officer to engage with the public for at least one year so as to allow an opportunity to monitor and enforce potential infractions and review its effectiveness in six months.





Mackenzie County

REQUEST FOR DIRECTION

Meeting:	Committee of the Whole Meeting
Meeting Date:	January 23, 2018
Presented By:	Doug Munn, Director of Community Services
Title:	Fire Truck Replacement

BACKGROUND / PROPOSAL:

Council has requested that administration prepare justification for the replacement of the 1995 GMC Fire Truck in the 2018 Capital Budget at a cost of \$500,000. Attached is a report that provides information and recommendation on this potential purchase.

This report is intended for information only at this point. Council will be meeting February 12, 2018 to discuss the capital budget and it is expected that a decision will be made at this time on the purchase of a fire truck for 2018.

Fire Chief Peter Wiebe will be at the meeting to answer any questions.

OPTIONS & BENEFITS:

COSTS & SOURCE OF FUNDING:

COMMUNICATION:

RECOMMENDED ACTION:

For review and discussion.

Author: D Munn Reviewed by: _____ CAO: _____

REPORT

DATE: January 4, 2018
TO: Council
FROM: Doug Munn, Director of Community Services
SUBJECT: 2018 Fire Truck Purchase

During the 2018 Budget discussions Council requested more information in order to justify the purchase of a fire truck for La Crete. This report will cover the following topics:

- a) Fire Underwriters Survey and it's impact on Fire Truck Fleet
- b) NFPA Response Times
- c) Detailed review of the La Crete Fire Truck Fleet
- d) Use of Trucks
- e) Justification to purchase new fire truck in 2018

The Fire Underwriters Survey

Fire Underwriters Survey (FUS) a subsidiary of SCM Insurance Inc., is a provider of data, underwriting, risk management and legal/regulatory services focusing on community fire-protection and fire prevention systems in Canada.[1] Fire Underwriters Survey publishes the Canadian Fire Insurance Grading Index which is utilized by the property-casualty insurers in that country.

The intent of the system of fire insurance grading is primarily to provide insurers with accurate information to base underwriting decisions on, however a significant benefit of the system is that it results in incentives for development of recognized forms of public fire protection by communities throughout Canada. Many Canadian communities organize and develop their public fire protection systems and organizations to strategically optimize the cost benefit to constituents. [Wikipedia].

Appendix 1 Insurance Grading Recognition of used or Rebuilt Fire Apparatus (FUS) provides more detail on the grading used by underwriters regarding fire protection. This article will help to explain the need to keep the fleet up to a certain standard.

National Fire Protection Agency (NFPA) – Response Time Standards for Volunteer Fire Departments

The NFPA sets standards for fire fighting in Canada. NFPA 1720 applies to volunteers who typically don't have personnel on-duty in stations and instead respond to page-out from home, work, or elsewhere. It is this fact of volunteer response that introduces a key variable into the picture. Volunteers cannot guarantee availability like career, on-duty staff can do unless the volunteers are in the station when actually alerted. In this standard response goal criteria are very different and intended to reflect the nature of a volunteer response system.

In general, 1720 provides the following benchmarks:

- Urban Zones with >1000 people/sq. mi. call for 15 staff to assemble an attack in 9 minutes, 90% of the time.
- Suburban Zones with 500-1000 people/sq. mi. call for 10 staff to assemble an attack in 10 minutes, 80% of the time.
- Rural Zones with <500 people/sq. mi. call for 6 staff to assemble an attack in 14 minutes, 80% of the time.
- Remote Zones with a travel distance =8 mi. call for 4 staff, once on scene, to assemble an attack in 2 minutes, 90% of the time.

Review of La Crete Fire Truck Fleet

Appendix 2 is a list of all fire trucks owned by Mackenzie County and it provides some details of each vehicle. The following Table 1 summarizes the trucks in La Crete and following is details on each of these vehicles:

Schedule 1 – La Crete Fire Truck Fleet

5	1991	GMC	LC FIRE DEPT #2	\$180,000	FT-2	PUMPER/backup	To replace in 2018
6	1995	FREIGHTLINER	FL106	\$1	FT-2	LADDER	Purchased in 2016
7	2004	PETERBILT	330 PUMPER	\$186,305	FT-2	PUMPER	
8	2006	PETERBILT	RESCUE UNIT	\$227,716	RV-2	RESCUE	
9	2012	FREIGHTLINER	1145D	\$316,347	FT-2	TANKER/drafting	

Truck #5 – 1991 GMC

Age: 27 Years Old
Underwriter Grading: No Credit in Grading
Type/Use : Pumper
Billing Hours: 0 billing hours in 2017
Features: - Designed as a stationary pumper to fight structural fires
- Medium water tank – 700 gallons
- Medium pump capacity
Notes: This truck is technically a backup pump and it was mainly used for a backup pumper when other units are out on a call so that communities are not left vulnerable or for major or difficult to access fires, it was used as a relay truck. Examples of this would be when a fire is a distance away from a dugout this vehicle can act as a “booster” to relay water from a distant water source. The vehicle had 109 active pump hours in 2016 before the drafting pump broke. Due to the age of the vehicle many parts are no longer available. The vehicle is no longer recognized by the Fire Underwriters Survey. This vehicle is not being used due to its condition and it is recommended for replacement in 2018.

Truck #6 – 1995 Freightliner

Age: 22 Years Old
Underwriter Grading: No Credit in Grading
Type/Use : Ladder/Pumper
Billing Hours: 54 billing hours in 2017
Features: - Remote control ladder to attack from above and access structures
- Small water tank – 500 gallons
- Large pump capacity
Notes: This ladder/pumper is recognized by the Fire Underwriters Survey as a secondary unit. It is a vital piece of equipment for structure fires, industrial fires, high angle/building rescues as well as for events like the Norboard fire in 2016 were our back-up pumper truck pumped for a 109 hours. We are careful with the amount we invest in repairs into this vehicle as the costs have been very high and we are recommending replacement in 2021.

Truck #7 – 2004 Peterbuilt

Age: 14 Years Old
Underwriter Grading: First Line
Type/Use : Engine (Pumper Truck)
Billing Hours: 86 billing hours in 2017
Features: - Medium water tank capacity – 1,000 gallons
- Large pump capacity
- Designed as a stationary pumper to fight structural fires
Notes: This is the primary pumper used in almost all fires and a critical component in our fleet. It will be considered First Line until it is 20 years old.

Truck #8 – 2006 Peterbuilt

Age: 12 Years Old
Underwriter Grading: No Grading: Rescue trucks are not considered fire Trucks for the Fire Underwriter Survey
Type/Use : Rescue Vehicle
Billing Hours: 93 billing hours in 2017
Features: - Designed to transport rescue equipment
- Small foam system but it is not capable of extinguishing a vehicle fire.
Notes: The Rescue Truck is intended to respond to incidents when there is human injury and is equipped with jaws-of-life, first response medical aid equipment and other rescue equipment.

Truck #9 –2012 Freightliner

Age: 6 Years Old
Underwriter Grading: First Line
Type/Use : Tanker/Drafter
Billing Hours: 54 billing hours in 2017
Features: - Large water tank – 3,000 gallons
- Medium pump capacity
- Ability to draft water
- Main function to shuttle and relay water
- Limited use due to heavy weight
Notes: This unit is our main tanker and is used in all fires and it shuttles water when additional water is required. It is able to draft water from a source and can be used to deliver water to a pumper source.

Notes: Hours of use excludes training, MCR calls and the units that responded but didn't get used on the incidents.

Use of Trucks

Vehicles are used in a variety of ways. The descriptions above give basic information on each vehicle and their abilities however the way they are used varies depending on the incident. Following are examples of the type of incidents that occur:

- Motor Vehicle Collisions
- Structure/Industrial Fires
- Vehicle Fires
- Grass Fires
- Equipment Fires
- Power-line Related Fires
- Fire Alarms
- Aircraft Collision
- Bale Fires and a Sawmill Dust Explosion
- Low angle/confined space rescue/recovery
- Property protection (protecting property/yard sites in wildfire events)

In most cases the First Line vehicles will be sent to a fire scene, however certain situations will require additional pump capacity and the secondary units will be called to use for either relaying pumping or shuttling water or for additional pumping capacity on large fires. In 2017 there were two incidents where occupants were in buildings so quick response is critical. During smaller events the second line vehicles remain at the station in case a second call comes in. It is risky to expect other stations to be used for a second call because they would not be able to meet the required response time. The first few minutes of a fire are the most critical and the sooner the response vehicles arrive, the better the chance of saving lives and property. In rural area there is less chance of a second fire breaking out therefore the risk is lower. The section on Response Times in this report provides better information on the expectations placed on fire departments.

Why is there a need for five trucks in La Crete? To begin with, one of the trucks is a Rescue Truck and is not typically used for fire response. As mentioned earlier, we have had several occasions annually when all four of our fire trucks are being used on a single fire. During a recent house fire in Blumenort area both La Crete and Fort Vermilion were dispatched. The Tankers will be used to shuttle water to the pumpers. One of the pumpers can no longer draft water so the tanker must remain a nurse vehicle to feed the pumper. Depending on the type of fire that is being fought it is not uncommon to send out all vehicles to a fire. When necessary vehicles from other stations are called to assist. During a recent fire between La Crete and Fort Vermilion both fire departments responded and all vehicles were used.

The majority of our newer industrial building within La Crete (including Heimstead Lodge) have sprinkler systems in place for added protection. This is an excellent protection program, however in order to maintain the benefit it takes one of our pumper trucks full capacity and a fire hydrant just to maintain the pressure/flow of the sprinkler system. We have learned from experience that for bigger fires we've always needed two to three trucks for the fire attack/exposure protection.

The Ladder truck is a specialized vehicle that is valuable for structure fires. The ability to attack from above coupled with the ability to mount a hose on the end of the ladder increases the ability to extinguish a blaze and protect surrounding property. The ladder has also given us access to a number of bin fires at our local Sawmill, which greatly improves the safety of our firefighters and enhances our firefighting capabilities. Although this vehicle is not rated through the underwriters it serves a very valuable function. We recently had to spend significant dollars to repair the vehicle but we felt it worth the investment because of its abilities to attack from above and remotely direct water.

It should be pointed out that two of the four fire trucks no longer meet the Fire Underwriters requirements. As the fleet ages it is important to keep them young.

Justification to purchase a new Fire Truck in 2018

The following was written by Peter Wiebe:

Justification for a new Fire Truck – By Fire Chief Peter Wiebe:

In the last seven years we have seen an increase to our call volume within the fire services, particularly with; grass, brush, powerline, vehicle and equipment fires as well as quad, snowmobile and motor vehicle incidents. A number of these incidents tend to be off road making it difficult or impossible to access the actual site with our current fire trucks, during this time we have also experiencing an increase in multiple simultaneous calls, stretching our resources to the point of limited or no coverage within the La Crete response area. Also seeing that our pumper trucks are getting up in age and are experiencing mechanical problems I'm proposing that we would replace the truck with the mechanical pump problems in 2018. Our back-up pumper truck in La Crete is 26 years old, is not recognized by the Fire Underwriters Survey as a frontline or secondary unit and has mechanical problems with the pump that results in the inability to draft. Being that this truck gets utilized in rural calls and is one of the trucks that is a key piece of equipment for relay pumping as well as for the bigger events within the area like the Norboard fire in 2016 were our pumper truck pumped for a 109 hours. The wildland urban interface truck (identical to the truck in Zama) would be an excellent replacement truck for the needs of our community. This truck would be utilized as a pumper/rescue in the event of multiple calls at the same time, or multiple vehicles involved in a collision where extrication or assistance in fire suppression is needed and for towing our Sprinkler Trailer, Technical Rescue Trailer and our 6x6

and Fire Cady. This would ensure that we still have a back-up rescue unit in the event that our main rescue unit is out on a Hazmat call, MVC, assisting Fort Fire on a Motor Vehicle Collision or is out providing Rehab, self-contained breathing apparatus and tool support at a lengthy structure fire within the county. Having the manpower to man the unit and seeing the need over the past five years I feel that in order to maintaining our level of service to our citizens and rate payers of Mackenzie County this would be a fairly cost effective replacement option.

- The ultimate urban interface vehicle. The Rosenbauer Timberwolf is designed to meet both the requirements of a Type 1 structural pumper and a Type 3 off-road, wildland, fire-fighting vehicle. The unit would have a 1250 GPM multi-stage pump and a 750 gallon water tank to meet the complex challenge of fire-fighting.
- Design construction for extreme-duty applications, superior pumping capability with high flow, high pressure and foam applications, user friendly design with simple to operate pump controls, rescue style body for all kinds of equipment storage

Summary

Of the four fire trucks in the La Crete Fleet two of them are no longer recognized by the Fire Underwriter Survey. One of the graded trucks is 12 years old and will not be graded in 6 years from now and it is important to keep our fleet young. Our secondary pumper can no longer draft water, which is an important function for a backup vehicle when fighting structure fires and we are having trouble getting parts for this 26 year old vehicle.

It is recommended that Council include \$500,000 in the 2018 Capital budget for the replacement of the 1995 Pumper truck.

Appendices:

Appendix 1 - Insurance Grading Recognition of used or Rebuilt Fire Apparatus

Appendix 2 – Summary of Mackenzie County Fire Truck Fleet



FIRE UNDERWRITERS SURVEY

A SERVICE TO INSURERS AND MUNICIPALITIES

c/o CGI Information Systems and Management Consultants

Insurance Grading Recognition of Used or Rebuilt Fire Apparatus

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

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

F.U.S.'s lengthy experience in evaluating fire apparatus indicates that apparatus should be designed to an acceptable standard. The standard that is accepted throughout Canada by Fire Underwriters Survey is the Underwriters' Laboratories of Canada (ULC) Standard S515-04 titled, "Automobile Fire Fighting Apparatus," which was adopted as a National Standard of Canada in September 2004. Fire apparatus should be built by recognized manufacturers.

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

- a. Inadequate braking system
- b. Slow pick-up and acceleration
- c. Structurally weakened chassis due to constant load bearing and/or overloading
- d. Pump wear



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

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

Table 1 Service Schedule for Listed Fire Apparatus

For
Fire Insurance Grading Purposes

Apparatus Age	Major Cities	Medium Sized Cities or Communities Where Risk is Significant	Small Communities and Rural Centres
0 – 15 Years	First Line	First Line	First Line
16 – 20 Years	Reserve	2 nd Line	First Line
20 – 25 Years ¹	No Credit in Grading	No Credit in Grading or Reserve ²	No Credit in Grading or 2 nd Line ²
26 – 29 Years ¹	No Credit in Grading	No Credit in Grading or Reserve ²	No Credit in Grading or Reserve ²
30 Years and Older	No Credit in Grading	No Credit in Grading	No Credit in Grading

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

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

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Services Provided by CGI Risk Management Services
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Table 2 Frequency of Listed Fire Apparatus Acceptance and Service Tests

For

Fire Insurance Grading Purposes

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

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

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

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

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

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

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

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



SERVICE TESTS FOR USED OR MODIFIED FIRE APPARATUS

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

1.) **Weight Tests**

1.1) **Load Balance Test:**

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

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

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

2.) **Road Tests**

2.1) **Acceleration Tests:**

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

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

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

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 km/h (20 mph) in a distance not exceeding 9 metres (30 feet) by actual measurement. The test should



be conducted on a dry, hard surfaced road that is free of loose material, oil and grease.

3.) **Pump Performance Tests**

3.1) **Hydrostatic Test**

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

3.2) **Priming and Suction Capability Tests**

3.2.1.) **Vacuum Test:**

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

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

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

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 feet) through 6 metres (20 feet) of suction hose of appropriate size, in not more than 30 seconds and not over 45 seconds for 6000 L/min (1320 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 shall be conducted with all discharge caps removed.

3.3) **Pump Performance**

3.3.1.) **Capacity Test:**



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

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 test procedures, the following documents provide useful data:

- Underwriters Laboratories of Canada (ULC) Standard S515-04 “Standard for Automobile Fire Fighting Apparatus, latest edition.
- Fire Underwriters Survey (FUS) publication titled “Fire Stream Tables and Testing Data” latest edition.
- International Fire Service Training Association (IFSTA) publication title “Fire Department Pumping Apparatus”, latest edition.
- National Fire Protection Association (NFPA) 1901 Standard title “Pumper Fire Apparatus”, latest edition.
- National Fire Protection Association (NFPA) 1911 Standard titled “Service Tests of Pumps on Fire Department Apparatus” latest edition.

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

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Appendix 2

Fire Trucks - 2017

Line #	Year	Make	Model	Use	Location	NOTES	NOTES(2)
1	2003	FREIGHTLINER	NT53042S	FT-2	FV	RESCUE	
2	2007	PETERBILT	FV FIRE DEPT	FT-2	FV	PUMPER	
3	2016	Freightliner	Fire Truck Tender	Rec'd 2016	FV	TENDER	
4	2010	FREIGHTLINER	HL FIRE TRUCK	FT-2	HL		
5	1991	GMC FIRE TRUCK	LC FIRE DEPT #2	FT-2	LC	PUMPER/backup	Replace in 2018
6	1995	FREIGHTLINER	FL106	FT-2	LC	LADDER	Purchased in 2016
7	2004	PETERBILT	330 PUMPER	FT-2	LC	PUMPER	
8	2006	PETERBILT	RESCUE UNIT	RV-2	LC	RESCUE	
9	2012	FREIGHTLINER	1145D	FT-2	LC	TANKER/drafting	
10	1988	FORD	FIRE TRUCK - PUMPER	FT-2	Tompkins	PUMPER	
11	1991	GMC DIESEL	TOMPKINS WATER TANKER	T2-53	Tompkins	TANKER	Replace in 2017
12	2017	Kenworth T880	Fire Truck Tender	On Order	Tompkins	2017 purchase	To replace #11
13	2001	FORD	CHSCB 4X4	RV	ZA	RESCUE	
14	2010	FREIGHTLINER	ZAMA FIRE TRUCK	FT-2	ZA	PUMPER	
1	1950	DODGE FIRE TRUC	LACRETE FIRE DEPT.	FT-2		ANTIQUE	
2	1953	CHEV FIRE TRUCK	FT.VERMILION FIRE TR	FT-2		ANTIQUE	