

**Community Services Report to  
SPC on Community and Protective Services  
2019 October 09**

**ISC: UNRESTRICTED  
CPS2019-1311**

## **Amendment to Fire Operations and Fees Bylaw 55M2014**

### **EXECUTIVE SUMMARY**

Regulations around consumer fireworks are being removed from the National Fire Code, Alberta Edition, effective 2019 December 1, meaning that municipalities are free to govern the use of consumer fireworks within their respective jurisdictions.

The Calgary Fire Department (CFD) supports businesses operating in a safe manner and contributing to Calgary's safe and inspiring neighbourhoods. When considering the sale and use of consumer fireworks within Calgary's city limits, in order to support The City's continued goal of supporting business-friendly initiatives, CFD aimed to balance public safety with the potential business opportunities related to consumer fireworks sales. It was determined that regulations and compliance conditions required to sell and use fireworks would present undue red tape for businesses and potentially counteract any economic benefit of opening up the consumer fireworks market in Calgary.

As a result of this analysis, Administration recommends that an amendment be made to the Fire Operations and Fees Bylaw 55M2014 to continue to allow professional fireworks operators to work in accordance with current processes but to prohibit consumer fireworks in Calgary. This recommendation is made to uphold public safety related to consumer fireworks use and does not change the current state of fireworks use in Calgary.

#### **ADMINISTRATION RECOMMENDATION:**

That the Standing Policy Committee on Community and Protective Services recommends that Council give three readings to the proposed bylaw to amend Bylaw 55M2014, City of Calgary Fire Operations and Fees Bylaw (Attachment 1) to prohibit the sale and use of consumer fireworks.

### **PREVIOUS COUNCIL DIRECTION / POLICY**

The Fire Operations and Fees Bylaw 55M2014 came into effect 2015 January 1 and provides the CFD with its authorities, governance and operating framework.

On 2014 October 6, Council approved Bylaw 55M2014, City of Calgary Fire Operations and Fees Bylaw. This bylaw combined three existing bylaws into a single governing document. The three bylaws that were replaced by Bylaw 55M2014 were:

- Bylaw 37M84, The Calgary Fire Department Bylaw
- Bylaw 40M2003, The Fire Fees Bylaw
- Bylaw 48M2003, The Commercial Burning Bylaw

### **BACKGROUND**

The CFD adheres to and upholds the regulations of the Alberta Fire Code (soon to be renamed National Fire Code, Alberta Edition) and the Alberta Safety Code. Under the Safety Codes Act, Alberta adopts the latest edition of the National Fire Code of Canada and makes changes so the resulting document fits the Alberta legislative framework and meets the needs of Albertans. The objectives of the Alberta Edition of the National Fire Code (or the "Alberta Fire Code") are health, safety and fire protection of buildings and facilities.

## **Amendment to Fire Operations and Fees Bylaw 55M2014**

Locally, the Fire Operations and Fees Bylaw is in place to protect the safety, health and welfare of people and property. It gives the CFD the mandate to provide emergency and rescue services and sets out CFD's authority at incident scenes, as well as enables the Fire Chief to issue permits to regulate activities to help ensure the safety of Calgarians.

The sale and use of consumer fireworks has been generally governed by the Alberta Fire Code, and was historically prohibited in Alberta unless specific requirements were met by the vendor and the purchaser/user. In 2019, the Alberta Edition of the National Fire Code removed the reference to consumer fireworks, which left the regulation of consumer fireworks up to municipalities, though firecrackers are still governed by the Alberta Fire Code in the new edition.

Through the Fire Operations and Fees Bylaw 55M2014, the CFD has jurisdiction over fire safety matters within Calgary city limits, and so an amendment to the Fire Operations and Fees Bylaw 55M2014 is proposed that would continue to prohibit the use and sale of consumer fireworks in Calgary. This is intended to preserve public safety and mitigate the significant risks associated with consumer fireworks, especially in an urban residential setting.

### **INVESTIGATION: ALTERNATIVES AND ANALYSIS**

The CFD contributes to making Calgary a great place to make a living and a great place to make a life. To fulfill this mandate, the CFD recognizes that it must maximize public safety while minimizing unnecessary red tape for businesses. By applying the lens of upholding vibrant and safe communities, CFD is able to support Calgarians' safety in their everyday lives as well as during milestones and large celebrations. CFD works closely with the Internal Events Team and the OPEN4Business team to support businesses in Calgary while keeping visitors, citizens and business owners safe.

The proposed amendment to the Fire Operations and Fees Bylaw that would prohibit consumer fireworks in Calgary is included fully in Attachment 1. In considering this amendment, significant research was done to understand the options presented by the removal of consumer firework regulations from the Alberta Fire Code. These options included:

1. Allow the sales and use of consumer fireworks, as is done in parts of the United States and some Canadian jurisdictions;
2. Regulate certain aspects of use and sales; or
3. Prohibit all sales and use of consumer fireworks within Calgary.

In making the recommendation to carry out option 3, the CFD considered the potential economic benefit of consumer fireworks sales. It is difficult to predict the actual economic benefit as the market for consumer fireworks in Calgary has never existed before. In the US annually, consumer fireworks sales nationally total close to \$1 billion, however, regulations vary from state to state. While recognizing a potential economic benefit to businesses of selling fireworks, it must be acknowledged that fireworks are directly responsible for a significant number of injuries and fires each year.

Research shows that the risk to the public posed by widespread use of consumer fireworks is significant. Available data is mostly from a United States context, and shows that each year, consumer fireworks contribute to a significant number of fires, deaths, and injuries, as well as substantial property damage and loss.

**Community Services Report to  
SPC on Community and Protective Services  
2019 October 09**

**ISC: UNRESTRICTED  
CPS2019-1311**

### **Amendment to Fire Operations and Fees Bylaw 55M2014**

Information from Alberta about the risks of consumer fireworks is basically non-existent, because they have historically been illegal. This means that injuries or fires resulting from the use of consumer fireworks are rare, and those related to fireworks obtained illegally are more likely to go unreported or reported as caused by something else to avoid penalties.

The National Fire Protection Association (NFPA) estimates that US fire departments respond to an average of 18,500 fireworks-related fires per year, including 1,300 structure fires, 300 vehicle fires, and 16,900 outside and other fires. These fires caused an average of three deaths, 40 civilian injuries, and an average of \$43 million in direct property damage. Therefore, the NFPA advocates that only professionals should be handling fireworks of any kind.

According to the Consumer Product Safety Commission, in the United States in 2018, there were 9,100 fireworks-related injuries seen in US hospital emergency rooms, with 36 per cent of these affecting children under 15, and nearly half affecting people under 20 years old. Children 10 to 14 years old had the highest rate of fireworks-related injuries treated in US emergency rooms, at 5.2 per 100,000. Hands, fingers, legs, eyes, head, face, ears and arms were the most common areas of injury.

In a Calgary context, if these proportions are projected, this could mean an additional 15 to 20 fires due to fireworks, 36 injuries (with about 13 cases affecting children under 15), and up to \$1 million in property damage.

To mitigate the risks associated with consumer fireworks, manufacturers suggest a minimum safe clearance of at least 20 metres in height and distance from spectators and structures for the smallest consumer fireworks, and up to 110 metres away from buildings, animals or people for the largest. With this in mind, most private property in Calgary does not have the space for consumer fireworks to be used according to the manufacturer's own safety instructions. Even if consumer fireworks sales were permitted in Calgary, safe places to use them would be extremely limited or non-existent, consisting mainly of City public parks and green spaces.

Additionally, if consumer fireworks were permitted to be sold within Calgary city limits, businesses selling fireworks would need to comply with strict federal regulations on the storage of fireworks, and would be responsible for ensuring that customers purchasing fireworks had the proper training and knowledge to set them off safely, and that they were doing so in an appropriate location. These types of regulations are in line with permit processes in Canadian jurisdictions where consumer fireworks are available for sale. It should also be noted that no comparable Alberta jurisdiction allows the sale of fireworks to the general public within the city limits. Edmonton's regulations, for example, limit the sale of fireworks to certified display technicians with conditions similar to the display fireworks requirements included in the Alberta Fire Code.

Fire Marshals across Alberta share concerns about the public safety risks posed by consumer fireworks. As a result, eight major municipalities in Alberta, including Edmonton, Medicine Hat, Red Deer, Lethbridge, Grand Prairie, Regional Municipality of Wood Buffalo, Strathcona County and Calgary have drafted bylaws which prohibit the purchase and discharge of consumer fireworks. A number of these bylaws have been approved, and others are still in draft or currently under consideration by Council. A high-level summary of these bylaws and their respective status is included in Attachment 2.

## **Amendment to Fire Operations and Fees Bylaw 55M2014**

With this information in mind, the recommendation to prohibit consumer fireworks in Calgary is made. The recommendation continues to protect public safety and is in the best interests of business owners, as the sale of consumer fireworks would come alongside several federal regulations, permit processes and responsibilities for business owners selling fireworks, in accordance with the federal Explosives Act.

No change is proposed to the current process for commercial or display fireworks, which allows for fireworks during large celebrations such as the Calgary Stampede, Canada Day and Globalfest, among others, under the license of a certified fireworks operator certificate issued by Natural Resources Canada. Under this current process, minors are not allowed to handle fireworks, property owners need to provide written consent for fireworks to be used, and those using fireworks need to comply with various industry regulations, among other requirements. All of these requirements allow fireworks to be used safely in celebrations and community events for the public to enjoy.

### **Stakeholder Engagement, Research and Communication**

On 2019 May 23, CFD's Fire Marshal and Inspections Coordinators took the opportunity to attend a presentation delivered by the Canadian National Fireworks Association (CNFA) to a group of Fire Marshals from across Alberta, in order to understand more about the consumer fireworks industry. At that presentation, the CNFA proposed a partnership model to work with municipalities to allow safe and responsible use of consumer fireworks. The discussion included recognition that those using consumer fireworks would need to provide site plans, proactive proof of code compliance, and risk mitigation plans.

CFD also engaged other municipalities across Alberta to understand how they were planning to regulate consumer fireworks, in order to draw comparison for the Calgary context and ensure the proposed bylaw amendment for Calgary aligned with comparable jurisdictions.

Additionally, CFD is engaged with the OPEN4Business group, the Internal Events Team and Calgary Business Services to ensure that business opportunities are made available to Calgarians in a safe and efficient way. In order for the sale of consumer fireworks to be safe, a significant level of regulations would be required, and business owners would take on a high degree of responsibility for ensuring consumer fireworks were used safely by their customers.

### **Strategic Alignment**

This recommended bylaw amendment aligns with the following Council directive:

*A City of Safe and Inspiring Neighbourhoods:* Prohibiting the use of consumer fireworks, but allowing for fireworks permits to be issued to professionals using display fireworks for large events keeps Calgarians safe while allowing for celebrations and community events.

### **Social, Environmental, Economic (External)**

Prohibiting the use of consumer fireworks in Calgary will continue to support safe and vibrant communities for Calgarians, while maintaining opportunities for display fireworks to be enjoyed as part of large celebrations. There are no environmental impacts as a result of this

Community Services Report to  
SPC on Community and Protective Services  
2019 October 09

ISC: UNRESTRICTED  
CPS2019-1311

### **Amendment to Fire Operations and Fees Bylaw 55M2014**

---

recommendation, and no foreseeable economic impact as a result of prohibiting consumer fireworks, as they are not currently permitted for sale within Calgary.

#### **Financial Capacity**

##### ***Current and Future Operating Budget:***

This recommendation does not require additional operating budget funding.

##### ***Current and Future Capital Budget:***

This recommendation does not require additional capital budget funding.

#### **Risk Assessment**

The risk of not accepting this recommendation is primarily related to public safety. Consumer fireworks pose a direct risk to the safety both of those setting them off and those nearby, who may be impacted by a wayward explosive. They also pose a risk to property, pets, and children.

It is recognized that approving this recommendation also eliminates potential business revenue of selling fireworks, but this market does not exist currently. Consumer fireworks sales do not present an accessible business opportunity due to the amount of regulation and compliance requirements that would be the responsibility of businesses who wished to sell consumer fireworks.

#### **REASON(S) FOR RECOMMENDATION(S):**

This recommendation is made to fill the need for regulation to preserve public safety as related to consumer fireworks since the Alberta Fire Code no longer governs their use. The proposed bylaw amendments uphold public safety related to consumer fireworks and do not change the current state of fireworks use in Calgary.

#### **ATTACHMENT(S)**

1. Attachment 1 – Proposed Text for a Bylaw to amend Bylaw 55M2014, the Fire Operations and Fees Bylaw
2. Attachment 2 – Municipal Bylaws for Consumer Fireworks in Alberta, September 2019