

K & H DISTRIBUTING
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The Corporation of the City of London

August 22, 2023

Attention: Mayor Morgan and Councillors

Re: Review of London's Fireworks By-law

I am Victor Anber, owner and operator of the long established K & H Distributing Fireworks. I have made submissions to the CPSC and appeared before them, in person. I have attached our submission, (June 1st, 3 pages,) and a copy of my presentation, (August 15, 2 pages,) for your reference.

We are submitting new information for your upcoming, full, Council meeting. While almost nothing we do as human beings is totally carbon neutral, much is being made of the effects of fireworks on the environment. The Canadian Pyrotechnic Council has done much work on studying the imprint of fireworks.

On the following pages, we would like to present some examples and use Dr. Tom Smith's Environmental Calculator, (EnvCalc©,) to evaluate 3 typical range of consumer firework sales. Dr. Tom Smith is an Oxford University graduate with 1st class honours in Chemistry who in 1985 gained his Doctorate in 1985. (Dr. Smith's resume can be viewed at the following link.)

<https://pyrochemistry.files.wordpress.com/2009/04/taks-cv-oct-2016.pdf>

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Fireworks shows produce a limited amount of CO₂. We submit the following for reference.

CONSUMER FIREWORKS

We have 3 examples of typical consumer (homeowner) firework displays and their impact.

The calculations include the manufacturing, shipping from the manufacture, firing and disposal of the fireworks.

\$50 Retail Purchase (consumer fireworks) 0.23 kg NEQ

· Produces 0.32 kg of CO₂ or 0.00032 metric tonnes

\$100 Retail Purchase (consumer fireworks) 0.44 kg NEQ

· Produces 0.61 kg of CO₂ or 0.00061 metric tonnes

\$150 Retail Purchase (consumer fireworks) 0.80 kg NEQ

· Produces 1.10 kg of CO₂ or 0.0011 metric tonnes

Compare that to:

· Propane BBQ for 30 minutes 1.25 kg of CO₂

· Car Trip – medium size car (10 km) 1.90 kg of CO₂

· Cutting lawn with a gas mower – 2 kg of CO₂

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PROFESSIONAL/DISPLAY

For an example of a professional firework display and it's impact we used the Downtown London July 1st display which is one of our larger displays.

The calculations include the manufacturing, shipping from the manufacture, firing and disposal of the fireworks. The estimated number of viewers for the July 1st event is at least 40,000 people.

Canada Day Downtown London (Professional Display) 209 kg NEQ

Entertains: 40,000+ London residents

(*NEQ is Net Explosive Quantity of explosives.)

Produces 287.71 kg of CO₂ or 0.2877 metric tonnes

For each display audience member this would equate to:

- One Car would travel 1515 km (0.0379 km per person in a car)
- Food Production: 122 Big Macs (0.00305 Big Macs per person) , 10.7 kg of beef (0.27 grams of beef per person)
- Audience Breathing during the display 444.44 kg of CO₂

*Based on an audience of 40,000 people

What our company does to help offset our footprint

As part of our environmental commitment, K&H plants trees every year, the number of trees planted, as carbon offsets, exceeds our carbon footprint.

Shows generate mostly paper, and to a lesser degree, some plastic debris. K&H crews clean the sites after shows and pick-up the debris generated by the fireworks.

All the fireworks we use are specific to Canada and must be tested by the Federal Laboratory to ensure all Canadian Environmental Rules for the chemicals used, are followed. These rules are much stricter than other countries and help to protect our environment and citizens from dangerous chemicals.

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K&H uses the EnvCalc© program to calculate our environmental impact. It has been used by the author to develop risk models for a variety of high profile events including Hong Kong New Year's Eve, the Plymouth Firework Competition, London New Year's Eve and the London Olympics 2012.

The program provides an independent assessment, using consistent and checked data, of the environmental aspects of a firework display.

Thank you for your time in reading our latest submission. We can produce the detailed reports and figures should you wish to see them. Again, we know that fireworks are not carbon neutral, but are used just a few times a year and safely entertain tens of thousands in the City of London.

Yours truly,



Victor Anber

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Glossary

NEQ (Net Explosive Quantity) - also known as net explosive content or net explosive weight, of a shipment of fireworks or similar products, is the total mass of the contained explosive substances, without the packaging, casings, etc.

CO2 – Carbon Dioxide

Figures

Propane BBQ CO2

Based on a 40000 BTU BBQ for 30 minutes (2.51 kg per hr of CO2)

Car CO2

From NRCAN Consumption Guide 2022

<https://natural-resources.canada.ca/sites/nrcan/files/oeef/pdf/transportation/fuel-efficient-technologies/2022%20Fuel%20Consumption%20Guide.pdf> Average of 190 g of CO2 per km

Lawn mower CO2

According to the Government of Canada (One-Tonne Challenge) a gasoline powered lawn mower emits about 48 kilograms (106 lbs) of greenhouse gas in one season. Gas-powered lawn mowers are very inefficient, which means that despite their small size they produce a lot of air pollution. 24 cuttings per year is 2 kg of CO2 per cut.

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The Corporation of the City of London

June 1, 2023

Community and protective Services Committee

Re: Fireworks Review

Hello, I am Victor Anber. I own K&H Distributing Fireworks and I do the majority of Professional fireworks displays in the city.

I am writing to talk about the fireworks review and some of the news articles that have been published over the past couple of years.

I'll begin with Professional Firework Displays. Fireworks has a fascination for humans that transcends all boundaries, it doesn't matter what age you are, your sexual orientation, where you are from, cultural background or religion, people all around the world are fascinated with fireworks; and they demonstrate this love and fascination year after year after with their attendance at the displays. Surveys protesting fireworks are not worth consideration as a very vocal minority can influence survey results by voting multiple times and soliciting support from like-minded groups from around the world. However you cannot falsify the people voting in favour of fireworks. They vote with their attendance at the multiple displays in and around The City of London. The following attendance numbers are from the event organizers.

Fork of the Thames:	40,000+
Byron Optimists:	9,000 – 10,000
Summerside Community Club:	5,000+
WestPark Church:	7,000+
White Oaks Park:	20,000+
Highland Golf & Country Club:	numbers unknown at this time

All of these displays are on or immediately before/after Canada Day. This is a huge segment of the London population that has no issues with safe, legal, professional displays.

People speak of "Quieter fireworks." "Quieter fireworks" cannot entertain a large, spread out, group; this is especially true for the Fork of the Thames which a large majority of the City is able to see from a great distance. "Quieter fireworks" are pyrotechnic articles that do not reach the height of, nor break and spread across the sky as professional display fireworks do. If you do want to get to larger, higher pyrotechnics, you are in the "Stadium Product" line and it is certainly not quiet. Pyrotechnic articles are much pricier than display fireworks and made in much smaller quantities, often to order/per event.

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Drones have been suggested as an alternative. Drones are very expensive and usually much shorter shows than display fireworks. It was quoted in the London Free Press that one can have a 50 drone show for about \$16,000.00. The city of Woodstock was mentioned, their show was 100 drones and lasted 9 minutes. The budget is not public but doing the math using the figures in the Newspaper would have been approximately \$30,000.00. This would be without musical choreography or Lasers to heighten the effect of the show upon the audience.

Firework displays draw community together, entertain very large crowds and elicit the “oohs and ahhs” one can hear in videos of the displays showing the audience interacting with the display and the display’s effect upon the audience.

A partial list of the benefits of large, public, firework displays:

1. Entertainment and Celebration: Fireworks displays are often associated with joyous occasions and celebrations such as national holidays, New Year's Eve, and cultural festivals. They provide a visual spectacle and a sense of excitement, creating a festive atmosphere that brings people together. These events can boost community spirit and promote social cohesion.
2. Economic Impact: Fireworks displays can have a positive economic impact on local communities. Large-scale displays attract tourists and visitors, resulting in increased spending on hotels, restaurants, transportation, and other local businesses. This influx of tourism can stimulate the local economy and create employment opportunities.
3. Cultural Significance: In many cultures, fireworks hold symbolic and cultural significance. They may represent traditions, historical events, or religious celebrations. By organizing fireworks displays, communities can honor and preserve their cultural heritage, passing down traditions from one generation to another.
4. Civic Pride: Fireworks displays often serve as a source of civic pride. Communities take pride in organizing and hosting impressive fireworks shows that showcase their creativity and organizational skills. Such events can enhance community morale, promote a sense of belonging, and foster community pride.
5. Entertainment for All Ages: Fireworks displays have broad appeal and can be enjoyed by people of all ages. They create a shared experience, bringing together families, friends, and communities. Children, in particular, often find fireworks displays awe-inspiring and memorable, contributing to their overall enjoyment and sense of wonder.
6. Artistic Expression: Fireworks displays can be considered a form of artistic expression. The choreography, colors, patterns, and synchronized music can create a visually stunning and emotionally captivating experience. Fireworks designers and technicians work to create unique and aesthetically pleasing displays that can be appreciated as an art form. Huge competition fireworks festivals are held worldwide.

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Now I would like to address Consumer Fireworks. Consumer Fireworks in Canada is highly regulated by the Federal Government. The standards are unmatched almost anywhere else in the world. Consumer Fireworks have been a part of Canadian families' Victoria Day and Canada Day celebrations for almost 100 years.

Covid changed so many things and the use of Consumer Fireworks was one of them. People were housebound, no public gatherings, no public firework displays. It seems many people started entertaining themselves with firework shows in their backyards outside of the normal holiday weekends allowed. Things are almost back to "normal" now. Public displays are back, people can travel, go out and have far less down time at home. It is obvious by the drop in the number of complaints, that regular use of consumer fireworks has leveled out. There will always be someone who regardless of rules will do as they please but this is true in all aspects of life, not just fireworks use.

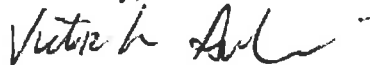
London is fortunate to have at least 4, long time, legal, safe, insured and professional fireworks vendors. They have operated in the city for 20 plus years and 2 for 40 years during the Victoria Day and Canada Day sales periods. The internet, however, allows purchase by anyone, anytime, no questions asked.

Reviewing the Fireworks Bylaw and using statistics from 2020 and 2021, would essentially be basing decisions on flawed data, data that is skewed by extraneous circumstances that changed the entire world for two years.

We respectfully submit that it would be more accurate, more fact based, to see what the summer of 2023 brings and address the issue at that time.

Thank you for your time in reading this and for your consideration. I would be more than happy to answer any questions and attend any meetings should you so wish.

Yours truly,



Victor R. Anber

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August 15, 2023

Hello Mayor Morgan, Councillor Peloza & Committee Members

I am Victor Anber, Owner/operator of K&H Fireworks. I have been in this business for over 35 years and a London retailer for almost 30 years.

There are 4 of us here today that combined, have over 100 years of history selling consumer fireworks in London. We operate legally, safely and responsibly. We have city Permits, \$500,000,000 insurance and are inspected by London Fire. We, and others, are not the "fly by night, drop a container and sell to everyone and anyone," vendors depicted in many of the submissions to tonight's meeting. We respect the City of London, we educate our customers and we follow Federal and Municipal rules. We hand out the London flyers and we hand out the "Be a Good Neighbour" flyer, all in an attempt to educate the public.

We sell to independent, City licensed stores who two times a year see a surge in their sales figures from selling this Federally regulated, legal product. They are aware of the rules and regulations because we ensure that they are.

Consumer fireworks sold in Canada is regulated by the Federal Government. Every single product sold here is tested in a Federal Laboratory call "the Canadian Explosives Research Laboratory," (CERL.) They test, before it comes to market and authorize and/or certify "**components and products to ensure their safe and effective use as they go to market.**" They are world renowned and respected.

This problem really started with COVID and the resulting lockdowns. People stayed home, they could not gather and it seems, they chose to entertain themselves with backyard fireworks. fireworks that were easily accessible online and from legal, unregulated sellers in the area. The complaints skyrocketed, pardon the pun! People were at their wits end during that awful time and some chose to party in their backyards and others were disturbed by it. I would be interested to know the complaint numbers from 2020, 2021 and compare them to 2022 and 2023? People are back out and about, public firework shows are back on and they are not confined to their backyards. **Maybe a pause and a consideration of the enormity of the effect of COVID on this particular issue would be a more logical place to start.**

Firework displays, in the City of London alone, at just 5 shows on Canada Day have an audience of well over 70,000 people in DIRECT attendance. This does not include those who travel to the general area to watch but are not counted by the event organizers who have provided these numbers. These tens of thousands of Londoners have voted, with their presence.

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The petition we submitted, in support of consumer fireworks, with over 680 signatures, was collected in just 5 days. These were taken in person, only one signature per person and from persons who would be directly affected by your decision.

The Canadian firework industry is hard at work researching and developing "greener" fireworks. It has long worked on reducing plastic and much is now done with paper and cardboard. The Canadian Pyrotechnic Council has ventured into Carbon Offsets, many companies are taking part. Just as other industries in London do, purchasing Carbon Offset credits while working to physically reduce any imprint created.

There is a long, long history of families coming together to celebrate Victoria Day and Canada Day with a gathering, BBQ and fireworks. The injury and accident *anecdotes* given draw from USA news where their consumer fireworks is far different from what is available in Canada due to our much more stringent regulations. I could give thousands of personal *anecdotes* that would speak to thousands of people using fireworks with zero incidents or accidents.

I am asking you to consider these facts, these arguments and to reflect on the economic impact possible in this decision. We are businesses that employ a large number of people during the traditional fireworks seasons. We are legal operators who are asking for enforcement of the current regulations, education and allowing for the continued use of a legal product enjoyed by so many.

Please remember the tens of thousands who are not here today, who may not have voted online or submitted letters but who every year, twice a year vote with their joy in fireworks.

Your decision tonight effects not just the few here, the few who voted/responded online but for these tens of thousands for whom we speak.

Thank you