

The ARLB does NOT encourage the use of fireworks



Growing risks associated with the use of fireworks near lakes and in our region.

As fun as fireworks can be, they cause more damage than expected. As soon as the fires burst into the sky, gases are released into the atmosphere, which are inhaled by humans and animals. In addition to the gases, burning debris and metals fall back to the ground and into the lake, where they become contaminating waste.

Fireworks are made up of several components that contribute noise, color, or propellant powders. While these ingredients combine to create a wonderful display, many of them are dangerous.

Please find the list of ingredients commonly found in fireworks, their uses, and what makes them dangerous. ([see table at the end of this document](#)). Fallout may contain one or more of these chemicals.

Neither the Lake Barron Board of Directors nor the Environmental Committee recommend the use of fireworks. We urge you to consider their harmful effects and remind you that polluting and littering the land or waterways is against the law.

[Additionally, Bylaw 188, Section 11 states that you must now obtain a permit from the Municipality of Gore to set off fireworks.](#)

RECENT ARTICLE IN THE BULLETINMILLE-ISLES NEWSLETTER

Due to growing concern about the use of fireworks and their impacts, the **Lake Hughes Association** asks residents to ban their use. The fallout can also contaminate the soil and surface water, which eventually seeps into our lakes. We were able to see, after a show, a significant amount of this debris at the bottom of Lake Hughes.

Fireworks are made up of several elements, each of which contributes to their propulsion and gives them color and sound. These chemical compounds make for a beautiful show, but they are dangerous. Their fallout is **poison, toxic, radioactive and even carcinogenic.**

Fireworks cause in animals **significant fear and stress**. Many pets run away. Some get injured or lost, and others are even killed. Animal ears are much more sensitive than human ears, and fireworks explosions can seriously damage their hearing. In 2010, an awareness campaign was launched at Lake Hughes. That summer, fireworks could be heard every weekend starting in late June and frequently during weekdays. **Although they have not been eliminated, we have noticed a significant reduction in their use.**

ADDITIONAL NOTE CONCERNING CONTAMINATION OF WATERWAYS

Although phosphorus is included in only trace amounts in fireworks, phosphorus residue accelerates eutrophication of lakes. Where lakes are already loaded with nitrogen, small additional amounts of phosphorus are a cause for concern. Eutrophication is linked to algae and cyanobacteria blooms, which can negatively impact drinking water quality, fisheries, wildlife, and human health. As we know, tests conducted at Lake Barron indicate that we should take better care of our lake.

In addition, fireworks produced in China do not guarantee that there has been strict quality control of the compounds and their toxicity level.

There have been research studies and articles written on the negative effects of fireworks. Here is a sample of these references:

http://www.backcountryattitude.com/toxic_fireworks.html
<http://des.nh.gov/organization/commissioner/pip/factsheets/bb/documents/bb-60.pdf>

<http://ecocerf.files.wordpress.com/2012/01/wildlife-summary-and-exhibits-except-no-4.pdf>
<http://legal-planet.org/2013/07/03/bombs-bursting-in-air-environmental-regulation-of-fireworks/>
<http://fr.wikipedia.org/wiki/Perchlorate>
<http://lacsimon.blogspot.com/2007/05/ban-fireworks-over-lac-simo.html>
<http://www.voiceforthevoiceless.org.za/dangers.htm>
<http://www.all-creatures.org/oapl/art-fireworks.html>

A FINAL NOTE

This is a copy of a letter from a resident to neighbors and friends that resulted in the elimination of fireworks in an area of Lake Barron, with everyone's cooperation.

Dear friends and neighbors,

As many of you are aware, I have been working closely with our municipality and other municipalities to discourage the use of fireworks

at the lake for several years. I have done this for several reasons, but mainly because of the negative effect they have on the environment and wildlife, the nuisance to those who do not enjoy them, the pollution created when the fallout reaches the lake, the dangers to those who light them, and the enormous fire risk to surrounding properties, not to mention the dangerous effect on our pets who suffer extreme fear because of these noises.

The Municipality of Gore has implemented a bylaw stating that a permit is required whenever a person wants to set off fireworks. In addition, all fireworks authorized by the Municipality of Gore must stop by 11 p.m. In some municipalities, fines have been imposed, and police have had to get involved when the laws were not followed. Alternatively, there are official festivals in the towns of Lachute and Morin-Heights, which are not located on a lake, that set off fireworks for these special occasions. People can enjoy the beautiful fireworks during these occasions.

Thank you for your cooperation.

Toxic elements in fireworks - Pick your poison!

Toxic Element	Use in Fireworks	Toxic effect of dust fallout and emissions
Aluminum	Glossy white	Contact dermatitis, bioaccumulation
Antimony sulfide	Sparkling effects	Toxic smoke, possibly carcinogenic
Arsenic compounds	Used as colorants Unfortunately still in use	Toxic ash that can cause lung cancer, skin irritation and wart formation.
Barium sulfate	Green sparkling effects	Toxic. Smoke can irritate the respiratory tract. Possible radioactive fallout.
Copper compounds	Blue color	Polychlorinated dioxins and dibenzofurans. Can bioaccumulate. Cancer risk.
Hexachlorobenzene (HCB)	Use was supposed to be banned worldwide.	Persistent environmental toxin. Carcinogenic, mutagenic and a reproductive hazard.
Lead/Nitrate/Chloride dioxide	Oxidizer	Bioaccumulation, developmental hazard for children & unborn children, can remain airborne for days, toxic to plants and animals
Lithium compounds	Vibrant reds	Toxic and irritating smoke when burned
Mercury (Dimercure dichloride)	Chlorine donor	Toxic heavy metal. Can bioaccumulate
Nitrogen Monoxide	Fireworks by-product	Toxic when inhaled. Is a free radical.
Nitrogen Dioxide	Fireworks by-product	Highly toxic when inhaled. SIDS risk in infants.
Ozone	Fireworks by-product	Greenhouse gases that attack, irritate the lungs
Perchlorate - Ammonium & Potassium	Propellant/oxidizing agent	Can contaminate soil & surface water, can cause thyroid gland problems in humans and animals
Potassium nitrate	In the black powder	Toxic dusts, cancer-causing sulfur-charcoal compounds
Strontium compounds	Vibrant reds	Can replace calcium in the body. Strontium chloride is slightly toxic.
Sulfur Dioxide	Gaseous by-product of sulfur combustion	Acid rain from sulfuric acid affects water sources, vegetation and causes material damage. Risk of SIDS.