

Contributed by the BVLDAMP

BVLD Airshed Management Plan
"If you can breathe, you can
make a difference."
Article #7 of 8



Not in OUR Backyard: The facts about backyard burning

To some people in the Bulkley Valley and Lakes District, backyard burning is an obvious solution to disposing of anything from household garbage including plastics and styrofoam, to yard waste such as leaves, grass and branches. However, backyard burning is a serious environmental and health concern as well as a visual blight to all people in our airshed.

The Bulkley Valley-Lakes District (BVLD) Airshed Management Planning process is working to address emissions of fine particulates from all sources, one of which is backyard burning. Other sources discussed earlier in this article series include beehive burners, domestic wood heating, resource management (open) burning and road dust. Many more sources of fine particulates exist in the airshed but these six have been identified by the planning process as having the greatest potential for impact. Emissions from backyard burning tend to be relatively localized in their effects, and include not only fine particulates, but also potentially significant amounts of dioxins.

Health and Environment

Fine particulates are emitted from burning of any kind, including yard waste and household waste. Breathing this pollutant causes heart and lung problems both in sensitive individuals as well as in healthy people. Because backyard burning occurs where people live and breathe, typically the smoke doesn't have time to disperse very much which means higher concentrations of fine particulates and increased health effects.

Burning of household waste also produces significant amounts of dioxins, which are toxic organic chlorine-containing compounds. These compounds typically don't exist in household materials but are formed when waste materials containing chlorine are burned, particularly at the relatively low temperatures achieved by backyard open and barrel burning. Only a very small amount of chlorine is needed for dioxins to be produced, and unfortunately, almost all domestic waste contains some amount of chlorine.

Dioxins travel through the air and deposit onto plants which in turn may be eaten by fish, meat and dairy animals, where the dioxins build up in their fatty tissue. As a result, people are exposed to dioxins by consuming vegetable (ie. your backyard garden), meat, fish and dairy products. Dioxins are persistent (they last a long time in the environment) and bio-accumulative (they build up through the food chain), both of which mean people, typically at the top of the food chain, get the highest exposure to this toxic group of pollutants. Some of the potential health effects associated with dioxins include:

- Effects on reproduction and development
- Immune system suppression
- Hormonal system disruption
- Cancer

Other pollutants with the potential for health and environmental impacts produced by backyard burning include polycyclic aromatic hydrocarbons, volatile organic compounds, carbon monoxide and hexachlorobenzene. The ash produced from open burning can also contain toxic metals that accumulate in plants that in turn can be ingested by people. As a result, ash from backyard burning should not be scattered in gardens or buried on local property.

Regulatory Aspects of Backyard Burning

In British Columbia, residential backyard burning falls under municipal jurisdiction, and in the BVLVD airshed, Smithers is the only community that currently has a bylaw prohibiting this practice. The Ministry of Water, Land and Air Protection (WLAP) has developed a Model Municipal Bylaw for Regulating Backyard Burning that is available as a tool to help municipalities considering development of such a bylaw.

In the provincial domain, both WLAP and the Ministry of Forests (MOF) have legislation that govern burning of various kinds. WLAP's requirements have the intent of protecting the environment and typically cover emissions produced during the conduct of an industry, trade or business; land clearing debris burning; or the back-stop that pollution must not be caused. MOF has requirements that serve the purpose of protecting against fire and insect hazards-requirements vary depending on the fire, ranging from backyard, to industrial/agricultural and resource management burning.

Alternatives to Backyard Burning

There are a number of other ways to deal with household and yard waste that would reduce or eliminate emissions of the pollutants discussed here. A few examples include:

- **Composting**-of leaves, grass and plant clippings as well as organics such as potato peelings and apple cores
- **Chipping**-of branches and clean wood, which can be used for mulch or for decorating the garden
- **Recycle**-check into what products are recyclable in your area, be sure to separate them from other waste, and take them to your local recycling centre
- **Municipal collection or drop off**-put your waste out for pick up or if there is no pick up available in your area, be sure to take garbage and other waste to your local transfer station or landfill

Given all the negative aspects of backyard burning, and the alternatives available (many of them useful and beneficial), everyone wins by not backyard burning.

For more information on this topic, go to some of our sources at:

U.S. Environmental Protection Agency

<http://www.epa.gov/epaoswer/non-hw/muncpl/backyard/>

Zero Waste Services

<http://www.zerowaste.ca/articles/column152.html>

Recycling Council of BC

<http://www.rcbc.bc.ca/resource>

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For more information about the BVL DAMP, contact the facilitators at Footprint Environmental Consultants, at 847-1672, drop by the office at 102-3423 Fulton Avenue in Smithers, or visit our website www.bvldamp.ca . For more information on regulatory aspects of open burning, contact your local fire department and/or municipal office, WLAP and MOF.