

CENTRAL OKANAGAN CLEAN AIR STRATEGY

Wood Smoke Facts, Myths & Misconceptions

myth Wood smoke is not harmful

The negative health effects of wood smoke have been extensively documented in hundreds of scientific studies. Pollution generated by wood burning is associated with an array of health problems – from a runny nose and coughing, to bronchitis, asthma, emphysema, pneumonia, contributing to premature death.

fact

myth “I can just shut my windows and I’ll be fine.”

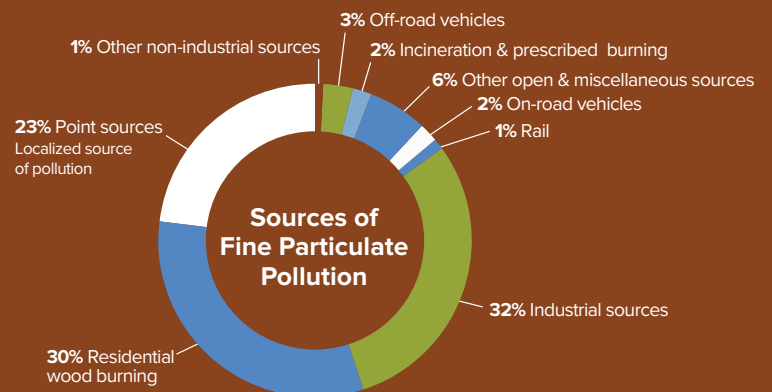
Smoke contains tiny particles that are carcinogenic to humans. The fine particle pollutants from wood burning are so small that they infiltrate even the most well-insulated and weather-stripped homes. Studies show that particle pollution levels inside homes reach up to 70% of the outdoor pollution levels.

fact

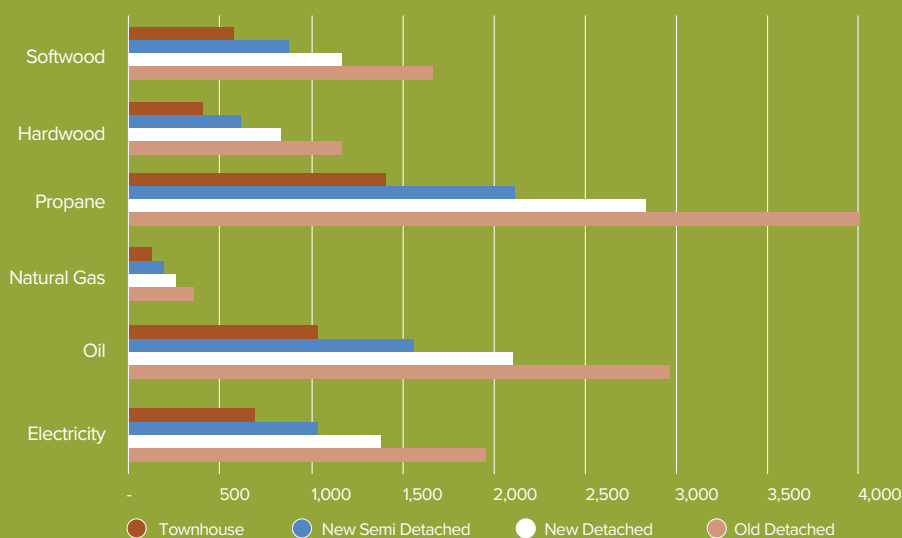
myth Pollution from wood burning is not significant enough to affect air quality

In the Central Okanagan, 30% of air pollution comes from residential wood burning appliances and another 8% from open burning overall. 38% is a significant amount of air pollution that we can play a role in reducing!

fact



Comparative Home Heating Costs Using Different Fuels



Note: “New” means houses built after 1990, and “old” means houses built before 1990.

misconception

Wood is more cost effective than other fuels

fact

Depending on your house’s characteristics, there are other inexpensive options like natural gas. Fireplaces are inefficient; residents would have to burn more wood to heat their homes using a fireplace than using a wood appliance. If you must choose wood burning as your source of heating for your home, the EPA-certified wood burning appliances heat more efficiently, using about 1/3 less wood and creating 90% less smoke.

For more information,
please visit www.regionaldistrict.com/airquality

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misconception

Wood burning fireplaces are a safe way to heat homes

fact

Wood burning appliances are safe only when used properly. In 2007, Fire Losses in Canada reported 131 fires in BC that were related to wood heating.



AREA OF ORIGIN	FIRES	%	DEATHS	INJURIES	\$ LOSSES
Kitchen	556	26	1	37	14,170,221
Living room	204	10	11	21	17,819,916
Bedroom	169	8	6	18	11,286,367
Chimney <i>masonry/factory built, metal; flue-pipe; gas-vent</i>	131	7	0	0	1,650,291
Outside Area <i>lawn, balcony, court, patio</i>	154	8	0	2	15,271,964
Exterior wall	79	4	0	2	8,069,468
Exterior roof	34	2	0	0	1,454,823
Vehicle Garage/ Carport	64	3	0	3	4,821,040
Laundry area	62	3	0	7	1,726,498
Heating equipment room	50	2	0	0	4,843,200
Exposure <i>(including smoke damage)</i>	50	2	0	1	8,282,401
Washroom	47	2	0	3	1,408,284
Ceiling & roof/ceiling space (attic)	46	2	0	3	4,641,865
All Other Area of Origin <i>(each 1% or less)</i>	359	15	0	20	94,690,119
Unknown	113	5	5	3	29,156,415
TOTAL	2,118	99	23	120	219,292,872

Home Fires in BC by Major Areas of Fire Origin - 2007

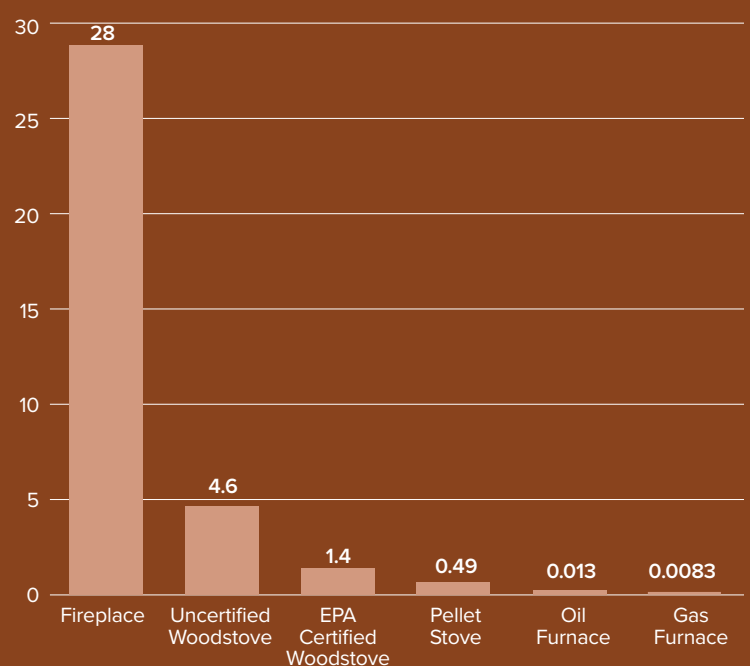
fact

After gas and electric heating, EPA certified wood appliances are the solution!

Gas and electric heating options are the safest solution. EPA certified wood stoves are efficient, but still produce smoke, which affects local air quality. In order to reduce the amount of smoke released during wood heating, follow these three steps:

- 1 Firewood with less than 20% moisture content is required by law and produces less smoke than wet wood
- 2 Regular maintenance is recommended for optimal performance and output of your wood burning appliance
- 3 EPA emissions certified appliances are required by law in the Central Okanagan since 1998.

Relative Emissions of Fine Particulate



Level of fine particulate emissions (lbs/MMBtu) from various heat sources, based on the US EPA data and diagram for the 1988 standards

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