

June 25, 2018

Fire bans during air quality advisories

According to the Fire Permit Bylaw, Section 10.2(A), the following factors can be considered when determining when to issue a fire ban in the City of Red Deer: the air quality index, levels of recent precipitation, water shortages or restrictions, availability of fire fighters and firefighting equipment, and the overall fire danger. While air quality has historically been considered as a factor when implementing a fire ban, in an effort to better protect Red Deer's air quality, we are implementing a formalized process to issue fire bans based on the air quality index.

1. Under what conditions are fire bans issued for air quality reasons?

A fire ban for air quality reasons can be issued if:

- The Air Quality Health Index (AQHI) for Red Deer is at 7 or greater and forecast to remain at 7 or greater the following day; or
- A special air quality statement is issued by Environment and Climate Change Canada where air quality could be further degraded by wood fires.

2. Is a fire ban for air quality the same as a fire ban issued for other reasons?

Yes, regardless of the reason for a fire ban, all of the same conditions and penalties apply. When a fire ban is issued, specific details will be provided, but generally during a ban all fires using charcoal, briquettes or wood within the city, including parks and outdoor residential property, are banned. This would include any source of open flame, such as Tiki Torches and backyard fireplaces.

3. When will the fire ban be lifted?

Like all fire bans, we continually monitor conditions and the fire ban will be lifted when air quality improves. For updates, please visit <http://www.reddeer.ca/city-services/ambulance-fire-and-emergencies/fire-prevention-bureau/fire-bans/>

4. What is the Air Quality Health Index (AQHI)?

The AQHI was developed by Health Canada to provide Canadians with local air quality information. It relates outdoor air quality to human health, using a scale of 1 to 10 – the higher the AQHI number, the greater the health risk and need to take precautions.

5. Why was an AQHI of 7 chosen as the point to issue a fire ban?

An AQHI of 7 and above is considered "high risk". Vulnerable people such as children, seniors and people with lung or heart disease or diabetes should reduce or reschedule strenuous activities outdoors. People participating in sports or strenuous work outdoors are also vulnerable. The general population should **consider** reducing or rescheduling strenuous activities outdoors if they experience symptoms such as coughing and throat irritation.

6. Why are fire bans issued for air quality?

Fire bans are issued when the AQHI is high (7 or greater), because smoke can make poor air quality even worse. Air quality has an impact on the health of the general public and the at risk population who are more susceptible. We want to protect the health of all our residents, especially during poor air quality events.

Wood smoke contains:

- Particulate matter – very small solid or liquid particles that can travel deep into your lungs, causing breathing and heart problems.
- Carbon monoxide (CO) - a colourless, odourless gas that is poisonous at high levels. It can make you feel sick and even kill you, when undetected.
- Volatile organic compounds (VOCs) - a wide range of compounds that usually have no colour, taste or smell. Some cause direct health effects, while others contribute to smog.
- Polycyclic aromatic hydrocarbons (PAHs) - compounds that can cause cancer.

In addition, wood smoke is a significant contributor to smog, which has been linked to severe health risks, including increased hospital admissions and premature death.