

City of Kelowna
City of West Kelowna
District of Lake Country
District of Peachland
Westbank First Nation
Regional District of Central Okanagan



Clean Air & Safe Routes 4 Schools



Outline

- What is **air** pollution?
- What makes **air** dirty?
- **Air** Pollution today
- **Air** Pollution and our health
- What are the pollutants?
- Where are the pollutants?
- Make our **air** cleaner!



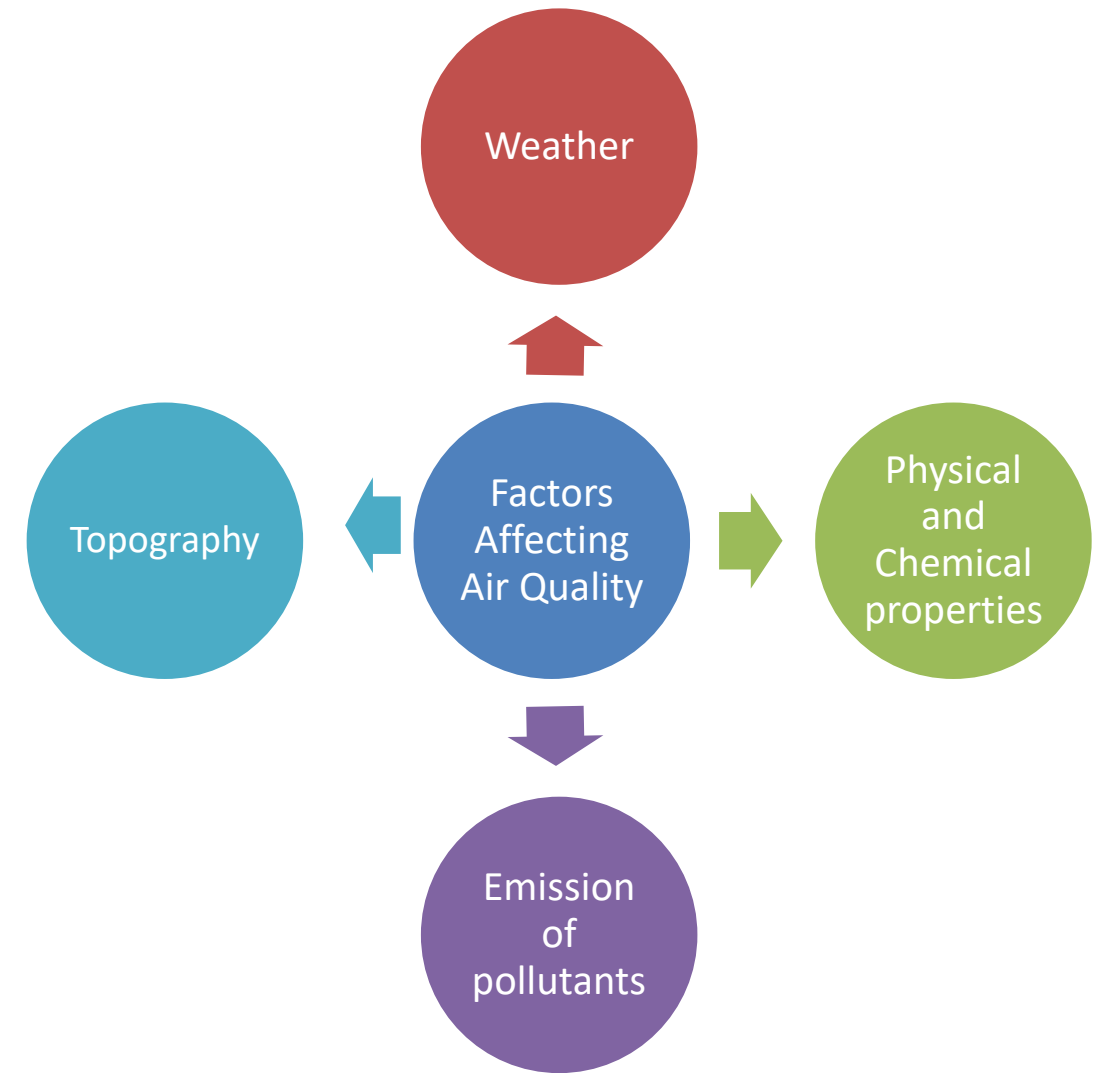
What is **air** pollution?

- Air pollution is anything that causes the air to become contaminated with pollutants at levels harmful to our health



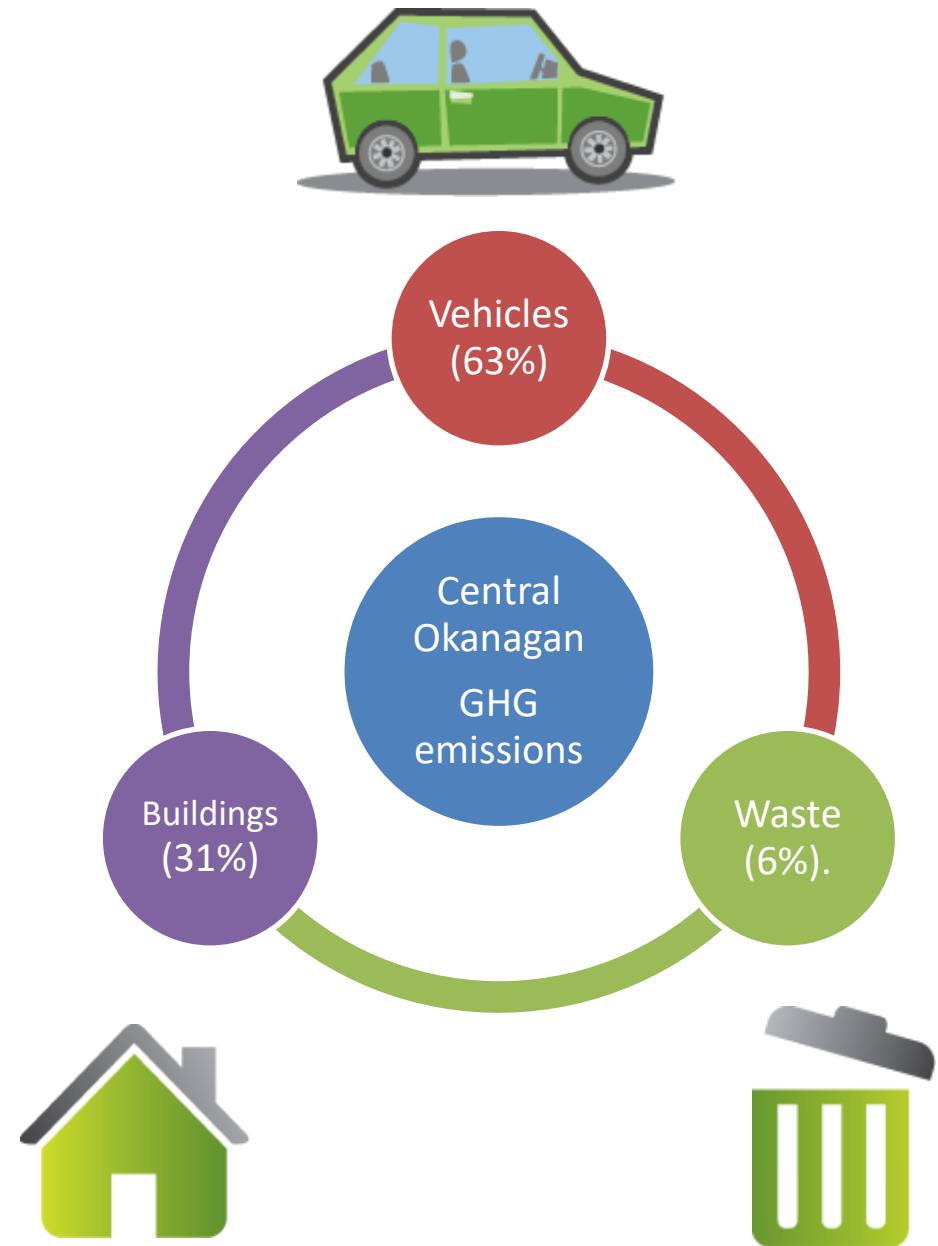
What makes **air** dirty?

- Burning of fossil fuels
 - Coal, oil, natural gas, gasoline or diesel
- Everyday activities
 - Cooking, washing at home or travelling by cars
- Increasing importance of vehicle emissions



Air pollution today

- When we think of air pollution, we should also think of **transportation**, especially **cars**
- **169,000** vehicles registered in the Central Okanagan Region (2022)
- **90,000 +** vehicles are on the road on a typical weekday.
- The gases emitted can be very dangerous to **children**



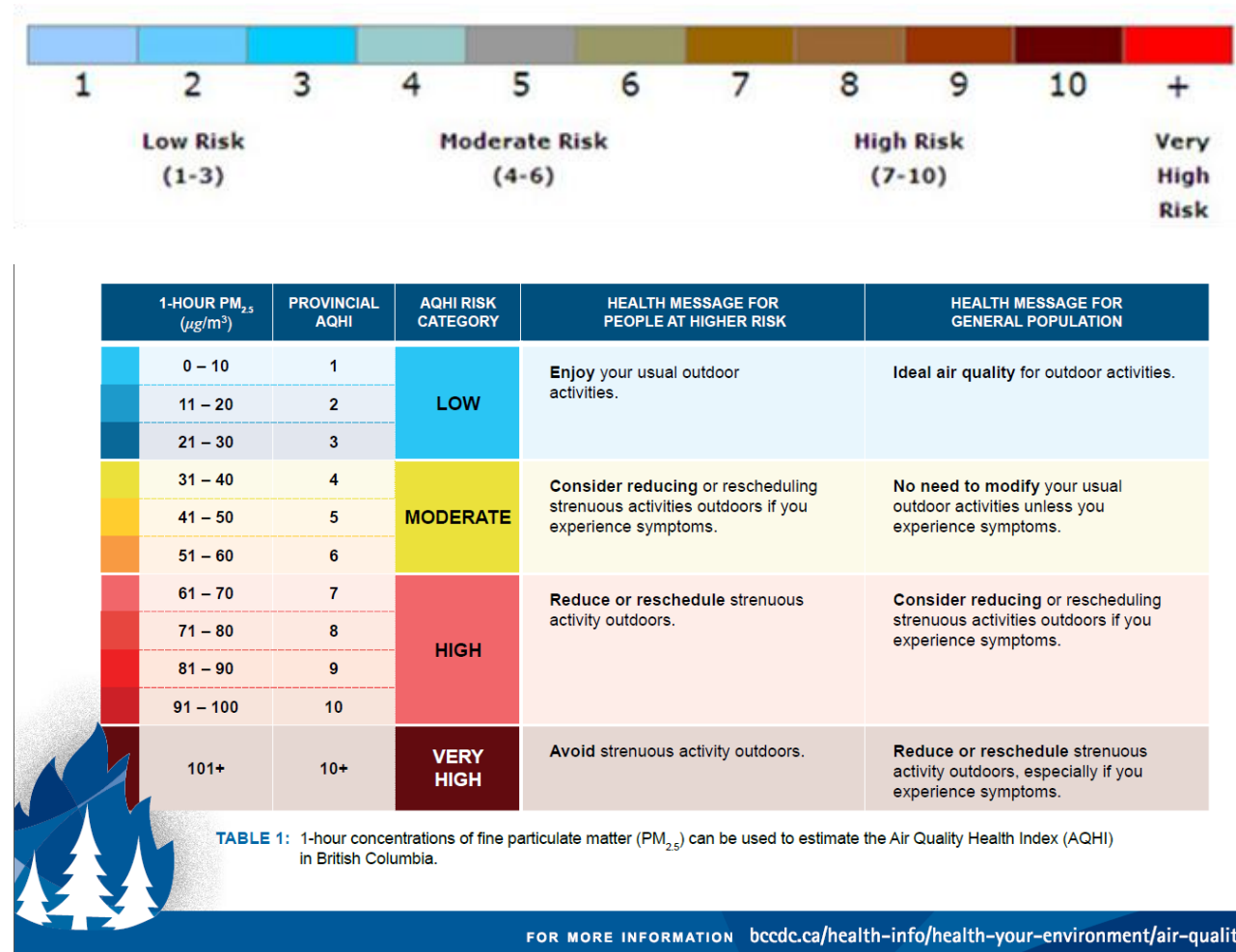
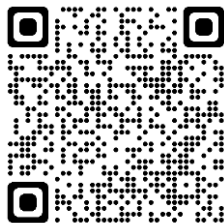
How does **air** pollution affect you?

- Air pollution causes breathing problems, lung and heart diseases, such as asthma
- Children are particularly at risk, air pollution can:
 - Affect your immune system
 - Make you cough, splutter, wheeze, sneeze, feel dizzy and it can make your eyes itch
 - Tiny particles of dust from [woodstoves](#) can affect your health.



How do we know if the **air** we breathe is clean?

- Air Quality Health Index or "AQHI" is measured on a scale ranging from 1-10+
- Check the [Central Okanagan Air Pollution levels!](#)
- Get the [AQHI Canada app](#) to stay informed



Where are the pollutants?

- The main causes of air pollution in B.C. are fossil fuel combustion and wood burning

Carbon Monoxide CO

- Invisible gas that is a fast-acting poison
- Higher concentrations can cause impaired vision and coordination, headaches, dizziness, confusion, nausea

Particulate matter PM2.5 &PM10

- Are tiny particles of dust and soot that can penetrate deep into our lungs
- Coughing and wheezing
- Heart and lung disease

Other Pollutants Sulphur Dioxide SO₂ Nitrogen dioxide NO₂

- Sulfur dioxide is a colorless gas with a pungent and suffocating odor
- Cancer, lowered immunity, disorders of the nervous system, and interference with child development

Ground level Ozone O₃

- Is a colourless, odourless gas made of three oxygen atoms
- Irritate the eyes, nose and throat and the lung airways
- Worsen asthma

Ozone (O₃)

1-High up in the atmosphere

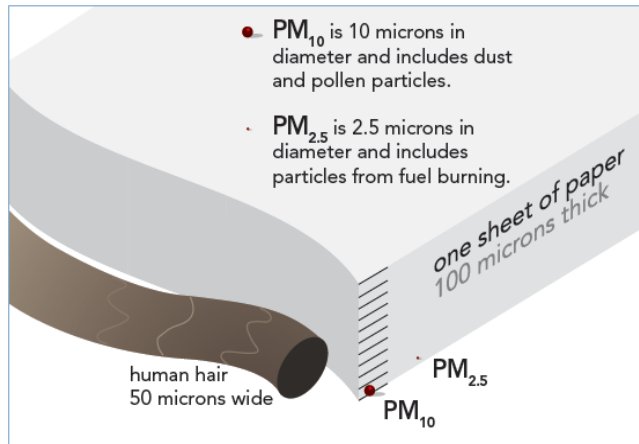
- When this gas is up high in the [ozone layer](#) it's "good" ozone and acts like sunscreen for the Earth.

2-Right down at the ground.

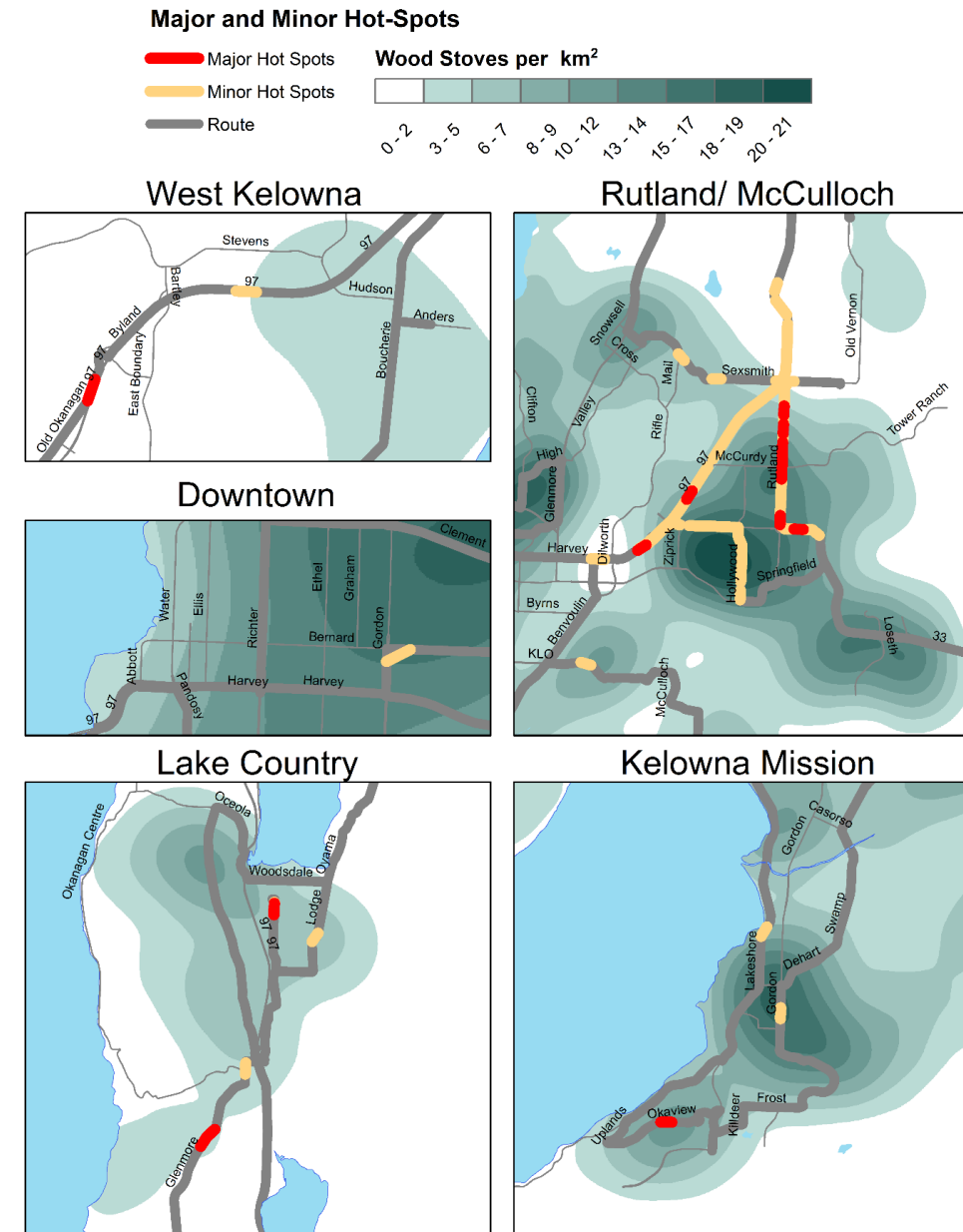
- When it's near the ground it's "bad" ozone.
- "[Ground-level ozone](#)" can affect our environment and our economy by damaging ecosystems and vegetation and accelerating global climate change.

Where are the pollutants?

- Everywhere!
- Too small to see without a microscope
 - they still get into our lungs and affect our health



- Higher concentrations of fine particulate or “Hot-spots” are mainly due to:
 - Fuel combustion (use of vehicles)
 - Wood burning (from wood appliances and open burning)



Everyone can help make our **air** cleaner!

1. Walk or roll to school!

- It is good exercise and can reduce air pollution
- [Watch the Pedestrian Safety video](#)

2. Use public transport

- take the bus instead of riding in the car

3. If you must travel to school by car:

- try car-sharing with other friends
- Park a few blocks from school and walk



www.smarttrips.ca

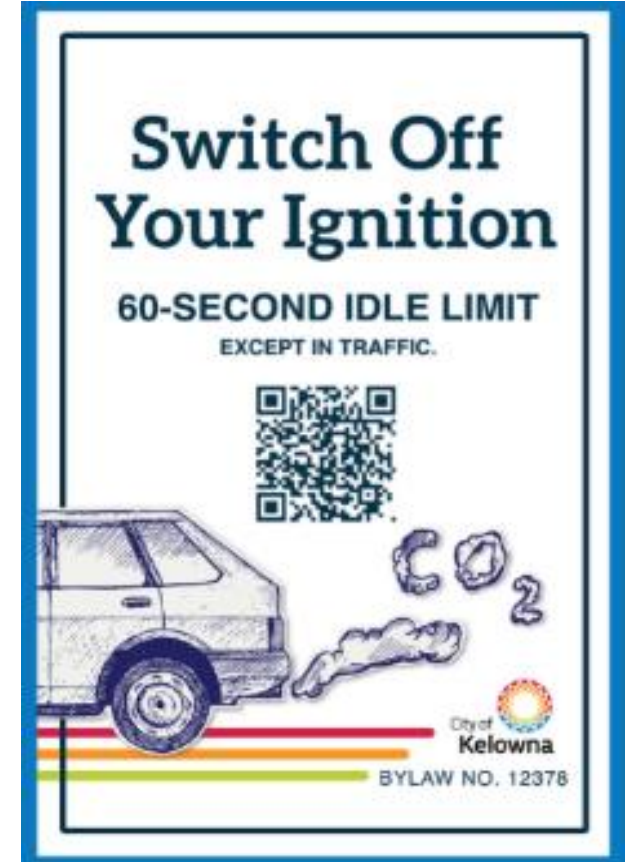
Everyone can help make our **air** cleaner!

4. Stop idling

- When people leave their car engine running while they have stopped, this is called 'idling'.
- Turning off the engine could reduce air pollution and save your parents some money!
- City of Kelowna's one-minute [Idling Control 12378](#) in effect since July 25, 2022.



Save fuel
and money!



Tell your parents!
If you're going to be stopped for more than 60 seconds
- except in traffic -
Please Turn the engine off

Everyone can help make our **air** cleaner!

5. Spread the word!

- Discuss air quality issues with your teachers, friends and family
- Make sure everyone you know is aware of the dangers of air pollution



6. Simple actions at home!

- Set the thermostat at the lowest comfortable temperature within an average of 18°C and 21°C
- Turn off the lights, TV or computer when you don't need them
- Tell your parents to wash your clothes in cold water and hang them out to dry instead of using a dryer, when they can
- Choose cleaner and more efficient heating devices. EPA emissions-certified wood appliances and heat pumps are cleaner ways to heat a home.
- Recycle!



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If you want to learn more visit:

rdco.com/airquality

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