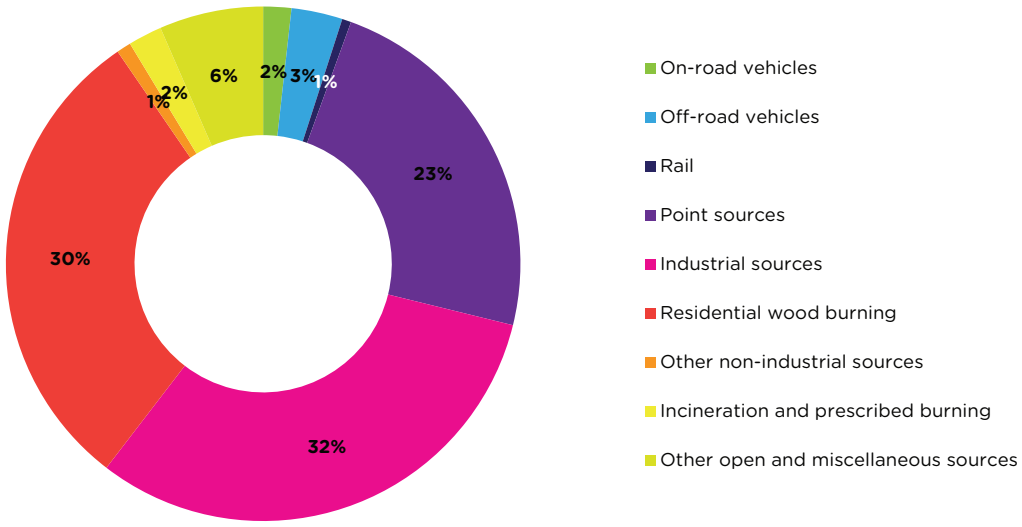
WHAT IS PARTICULATE MATTER?

Particulate matter (PM) consists of airborne particles in solid or liquid form. PM may be classified as primary or secondary, depending on the compounds and processes involved during its formation. Primary PM is emitted at the emissions source in particle form, for example, smoke from a chimney burning wood, or a recently tilled field subject to wind erosion. Secondary PM formation results from a series of chemical and physical reactions involving different precursor gases, such as sulphur oxides and nitrogen oxides, and ammonia reacting to form sulphate, nitrate and ammonium particulate matter.

SOURCES OF FINE PARTICULATE MATTER ($PM_{2.5}$) IN THE CENTRAL OKANAGAN AIRSHED



The size of PM particles largely determines the extent of environmental and health damage caused. For this reason, Environment Canada identifies different sizes of PM:

Total Particulate Matter (TPM) - airborne particulate matter with an upper size limit of approximately 100 micro metre (µm) in aerodynamic equivalent diameter

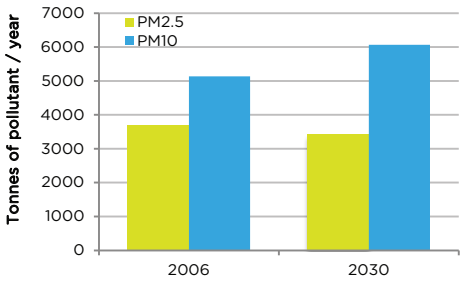
Inhalable Particulate Matter <10 microns (PM10) - airborne particulate matter with a mass median diameter less than 10 µm

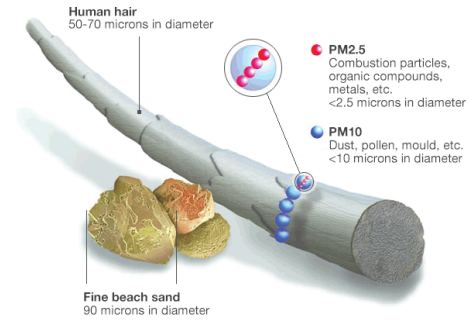
Fine Particulate Matter <2.5 microns (PM2.5) – airborne particulate matter with a mass median diameter less than 2.5 µm

Numerous studies have linked PM to aggravated cardiac and respiratory diseases such as asthma, bronchitis and emphysema and to various forms of heart disease. PM can also have adverse effects on vegetation and structures, and contributes to visibility deterioration and regional haze.

Efforts to address particulate matter (PM) levels in the air are important in both the United States and Canada. Canada and the United States have completed a joint transboundary particulate matter science assessment report in support of the Canada-U.S. Air Quality Agreement.

PARTICULATE MATTER FORECAST FOR THE CENTRAL OKANAGAN





Source: US EPA

SOURCES

https://www.ec.gc.ca/air/default.asp?lang=En&n=2C68B45C-1