

Air Quality in Saskatchewan



Clean air is vital to the health and well-being of Saskatchewan's residents and natural environment. 'Air' is the everyday term for the atmosphere - the intermixed layer of nitrogen, oxygen and other trace gases that surrounds our planet and makes life on earth possible. Air pollutants in Saskatchewan originate from local, regional and global sources. Major influences on air quality include industrial emissions, vehicle emissions, forest fires and agricultural operations. Air quality depends on the rate at which pollutants are emitted into the atmosphere and the ability of the atmosphere to disperse these pollutants. As a result, air pollution can be pervasive and does not recognize property or political boundaries.

Who does it affect?

Poor air quality can affect human health, the environment and the economy. The very young, elderly or those with compromised immune systems are often the most susceptible to air pollution. Asthma, lung cancer, cardiovascular disease, allergies and other human health problems have been linked to, or can be worsened by, poor air quality. Impacts on plant and animal biological diversity and productivity have also been attributed to pollutants in the atmosphere. Air pollution can have an impact on our economic wellbeing. The desire to prevent air pollution can affect decisions about what we buy, what we use, and how or where it is produced. Repairing the damage caused by air pollution, including health and environmental problems, can have economic implications. On the other hand, the creation of new technologies, knowledge, and jobs to address air quality concerns can produce economic opportunities.

How do we measure the air quality?

Measuring and evaluating air quality is an important activity in maintaining Saskatchewan's air quality. Instruments continuously monitor the ambient air and report hourly measurements. This information is made available to the public through the Air Quality Index (AQI). The AQI describes the general air quality in Saskatchewan by transforming ambient concentration measurements of sulphur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), carbon monoxide (CO) and fine particulates (PM_{2.5}) into a single number, or index, that represents the measured quality of the air. The index is also used to monitor long-term trends in air quality.