

## What We Monitor - Meteorological

The following meteorological parameters are measured at Fort Air Partnership continuous ambient air quality stations. No one station measures all of these, each station measures a portion of what is listed below. See [Substances Monitored by Station](#) for a complete list and a [summary of Alberta Ambient Air Quality Objectives](#) for the substances we monitor.

<b><u>Weather Condition</u></b>	<b><u>Description</u></b>
<b>Barometric Pressure (BP)</b>	Barometric pressure is also known as atmospheric pressure, or the pressure the air is exerting on the earth. As altitude increases barometric pressure decreases. Other factors like wind, temperature and weather affect barometric pressure. Barometric pressure of the air is measured in millimetres of mercury (mmhg).
<b>Outdoor Temperature (TPX)</b>	The temperature in degrees centigrade measured outside the monitoring stations at two metres above ground level.
<b>Outdoor Temperature (Temp_10)</b>	At one station temperature is also measured at 10 metres above ground. This is then used to calculate the difference in temperature between two metre and 10 metre heights.
<b>Relative Humidity (RH)</b>	This is the humidity or water vapour content in the air relative to the ambient temperature and pressure. Relative humidity is measured at two metres above ground level.
<b>Solar Radiation (SR)</b>	Solar radiation is the power (per unit area) received from the complete spectrum of wavelengths produced by the sun. The amount of power or radiation received changes with cloud cover and the angle of the sun each day and each season. Solar radiation is reported in watts per square metre. ( $w/m^2$ )
<b>Wind:</b>	
<b>Wind Direction (WDR)</b>	The direction the wind is blowing from, measured in compass degrees. North = $0^\circ$ or $360^\circ$ , east = $90^\circ$ , south = $180^\circ$ and west = $270^\circ$ . Wind direction is measured at 10 metres above ground level.
<b>Wind Speed (WSP)</b>	Speed the wind is blowing in kilometres per hour. Wind speed is measured at 10 metres above ground level.
<b>Vertical Wind Speed (VertWS)</b>	Speed of the wind as it flows vertically. Vertical wind speed is measured at 10 metres above ground level. Vertical wind can be either a positive or negative number. Updrafts result in a positive wind speed while downdrafts produce a negative wind speed. Vertical wind is reported in metres per second (m/s).