



AIR QUALITY GUIDELINES

Local air quality should be monitored by the event organizer and Cycling Alberta leading up to the event. For air quality monitoring the Alberta Governments Air Quality Health Index <http://environment.alberta.ca/apps/aqhi/aqhi.aspx> will be used.

Air Quality Health Index

The Air Quality Health Index or "AQHI" is a scale designed to help you understand what the air quality around you means to your health.

It is a health protection tool that is designed to help you make decisions to protect your health by limiting short-term exposure to air pollution and adjusting your activity levels during increased levels of air pollution. It also provides advice on how you can improve the quality of the air you breathe.

This index pays particular attention to people who are sensitive to air pollution and provides them with advice on how to protect their health during air quality levels associated with low, moderate, high and very high health risks.

The AQHI communicates four primary things;

1. It measures the air quality in relation to your health on a scale from 1 to 10. The higher the number, the greater the health risk associated with the air quality. When the amount of air pollution is very high, the number will be reported as 10+.
2. A category that describes the level of health risk associated with the index reading (e.g. Low, Moderate, High, or Very High Health Risk).
3. Health messages customized to each category for both the general population and the 'at risk' population.
4. Current hourly AQHI readings and maximum forecast values for today, tonight and tomorrow.

The AQHI is designed to give you this information along with some suggestions on how you might adjust your activity levels depending on your individual health risk from air pollution. [Follow this guide on how to use the AQHI.](#)

How is the AQHI calculated?

The AQHI is calculated based on the relative risks of a combination of common air pollutants that is known to harm human health. These pollutants are:

- **Ozone (O₃)** at ground level,
- **Particulate Matter (PM_{2.5}/PM₁₀)** and
- **Nitrogen Dioxide (NO₂).**



What is the scale for the AQHI?

The AQHI is measured on a scale ranging from 1-10+. The AQHI index values are grouped into health risk categories as shown below. These categories help you to easily and quickly identify your level of risk.



- 1-3 Low health risk **US AQI Equivalent** 0-50
- 4-6 Moderate health risk **US AQI Equivalent** 51-150
- 7-10 High health risk **US AQI Equivalent** 151-200
- 10 + Very high health risk **US AQI Equivalent** 201-300

The following procedures are to be followed depending on the Air Quality Index.

Air Quality Category	Message	Action for Events	US AQI Equivalent
Good Visibility: 15kms and Up AQHI 1-3	Ideal air quality for outdoor activities	Ideal conditions for an event	0-50
Moderate/ Unhealthy for Sensitive Groups Visibility: 5-14kms AQHI 4-6	Be aware of health effects of smoke and related symptoms	Be aware of health effects of smoke and related symptoms	51-150
Unhealthy Visibility: 2.5-4kms AQHI 7	Reduce or re-schedule strenuous activities, especially if you experience symptoms	Consider reduction of length of events and/or cancellation junior and younger events. Consider delaying the start of the event for up to 2 hours Cancel event based on the forecast Provide warning to competitors with respiratory issues	151-200
Unhealthy Visibility: 2.5-4kms AQHI 8	Re-schedule strenuous activities.	Cancel event Cancel Junior Events	151-200
Very Unhealthy Visibility 1.5-2kms AQHI 9-10	Avoid prolonged strenuous activities and stay indoors if possible	Cancel all events and training	201-300
HAZARDOUS Visibility: < 1.0km AQHI 10+	Avoid all strenuous activities and stay indoors	Cancel all events and training	301+

*Unfortunately, there are some areas in the province where there are no air quality monitoring stations. It will be up to the Chief Commissaire, TD and Organizer to consider other factors. Factors to take into consideration are,

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presence of smoke, regional air quality conditions, forecasted air quality conditions and visibility.

US AQI Equivalent (table above) is based on matching health-risk category names between the Canadian AQHI and the US EPA Air Quality Index (Good, Moderate, Unhealthy for Sensitive Groups, Unhealthy, Very Unhealthy, Hazardous) — it is an approximate correspondence, not a direct numeric conversion, since the two indices are calculated using different pollutants and formulas.



Decisions around cancelling/postponing events?

At any point where a decision is to be made regarding postponing, shortening or cancelling a race, the decision will be made by the Chief Commissaire, ABA Technical Delegate and the Organizer. If they choose to start an event, either on time or through postponement, the race may still be cancelled at anytime if the conditions become dangerous by either their decision, or the air quality reading becomes 8 or higher.