

## AIR QUALITY MONITORING GUIDELINES

### PURPOSE

This document is provided as a guideline to support decisions on whether a game(s) should be cancelled due to concerns with Air Quality.

It also provides information that Members are encouraged to consider in assessing air quality at local fields and raises awareness of potential participant health and safety considerations.

### BACKGROUND INFORMATION

- The Air Quality Health Index (AQHI) is a web-based, risk management tool, which describes a local reading of air quality as it relates to human health.
- While the Index number for a location can rise into the triple digits (Fort McMurray in 2016 peaked at over “180”) the AQHI treats anything above 10+ as “Very High” with health messages issued for the “general public” and “at risk” populations to reschedule all outdoor activities – strenuous or not.
- Soccer is considered a high exposure sport, regarding air quality. AQHI 7 or above are seen as high risk and soccer is a strenuous activity:
  - SSA and the Health Canada AQHI Index **recommend** that for strenuous activities like soccer, **events should be rescheduled for any AQHI 7 or above.**
- Individuals tend to rely on sensory perception to evaluate air quality when, in fact, the pollutants that present the greatest harm to human health are difficult to see or smell (e.g. ground level ozone).
- It is neither possible nor desirable to acclimatize athletes to air pollution. The US Olympic Committee recommends that when competing in high pollution areas the best strategy for training is alternative sites. “Stay away from air pollution.”

### PROCEDURE TO DETERMINE WHETHER OR NOT TO PROCEED:

#### 1. Be aware of weather and other conditions:

- Current forest fires that may impact your location
- Local burning of stubble on fields – these can increase particulate matter in the air without impacting the AQHI for a city.
- Sudden and dramatic changes in wind strength and direction.
- Proximity of any major road or highway or any industrial areas or other significant emission sources.

#### 2. Check the AQHI Online

- Review & Understand - [How to use the Air Quality Health Index](#)
- Go to [Saskatchewan - Air Quality Health Index - Provincial Summary](#) for Saskatchewan specific data

- Note the location, time, and date, and Index calculation.
  - If no values are shown or for other locations, go to <https://www.theweathernetwork.com/ca> and select your location. Local radio & TV may also be used as resources.
  - Updates usually occur hourly (at the top of the hour). Use the index calculation that is within one hour of scheduled kick-off or practice time.
- See Step 3 (Games) and Step 4 (practices) for next steps

### **3. Games**

- At game time, if the AQHI is 7 or above at game time the teams involved, and the Match Official shall consider either delaying kick-off or cancelling the game.
- The Match Official reserves the final right to cancel any game if they consider it to be dangerous, regardless of AQHI scores.
- In the event the game is cancelled, the Match Official is to write on game sheet reason for abandonment with the Index calculation and time & date of the calculation
- If air quality changes dramatically during a game (e.g. sudden smoke event caused by wind direction change) Match Officials and team personnel are advised to use their discretion. Record all decisions and relevant information on the game sheet.

### **4. Practices**

- If air quality is 3 or below continue with training as normal.
- If air quality is an index of 4 – 6 then be prepared to adjust the practice by:
  - Reducing the intensity.
  - Reducing the duration of the practice.
  - Providing resting periods.
- If air quality is 7 or above reschedule.

# Appendix

## Participant Considerations:

- Exercise-Induced Bronchospasm (EIB) is a sudden narrowing of the airways in response to vigorous exercise. It may occur in some individuals who have no pre-existing diagnosis of asthma. Most obvious symptoms of EIB include wheezing, prolonged shortness of breath, tightness in chest, coughing, extreme fatigue, and chest pain.
- Asthma sufferers should have their asthma under control before exercise (no coughing, shortness of breath, wheezing, etc.) and no other respiratory concerns (common cold, etc.). According to studies, asthma is now twice as prevalent in elite athletes as the general population. Symptoms of severe asthma emergency include: struggling to breathe, rescue inhaler does not help, cannot speak/finish sentences, nostrils flaring out, fainting, severe fatigue, blue lips and nails, and unconsciousness.

## References and Links:

Government of Saskatchewan, Air Quality <https://www.saskatchewan.ca/residents/environment-public-health-and-safety/public-health-advisories/air-quality>

Sport Medicine and Science Council of Manitoba (2013). *AQHI – Use in Sports*. Ironstone Digital.

Retrieved from <https://itunes.apple.com/ca/book/aqhi-use-in-sports/id603363086?mt=11>

Alberta Soccer Air quality guidelines: <https://albertasoccer.com/wp-content/uploads/2016/11/Alberta-Soccer-Air-Quality-Monitoring-Guidelines-November-2016.pdf>