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| **25.0 OUTDOOR AIR QUALITY** |

Air quality impacts individuals differently. Young children, pregnant people, and those with existing illness or chronic health conditions (I.e. heart and lung disease) are more sensitive to the adverse effects of smoke and puts them at a higher risk of health problems when exposed to air pollution. Those at risk include:

* **Elderly or seniors** (more at risk because respiratory, cardiovascular and immune systems are not as strong as they may have been)
* **pregnant people** (both mother and fetus may be harmed by wildland fire smoke because it contains many of the same compounds as cigarette smoke)
* **infants and young children** (may be more at risk because they have elevated metabolic rates and immature immune systems that make them more at risk)
* **smokers** (may have compromised lung function)
* **people who work outdoors** (are at risk when they are breathing deeply and rapidly).
* **people involved in strenuous outdoor sport/exercise/etc**. (are at risk when they are breathing deeply and rapidly).
* **people with an existing illness or chronic health conditions**, such as:
  + cancer
  + diabetes (may have underlying conditions such as cardiovascular disease)
  + mental illness
  + lung (asthma, chronic bronchitis, COPD, emphysema, etc.) or heart conditions (congestive heart failure, heart rhythm problems, angina, coronary artery disease, previous heart attack, etc.)
  + Students with chronic respiratory conditions have URIS plans to support planning for changing air quality conditions.

When people are participating in outdoor activities, sports or work they breathe more deeply and rapidly, which allows more air pollution to enter the lungs. This puts people who are active outdoors at greater risk when air quality is poor. The type of activity, the level of exertion required, and the age and relative health of all participants should be factors in deciding whether to hold, continue or modify an event.

**RESPONSIBILITIES:**

**Administrators/Supervisors:**

* When smoke can be observed or scented outdoors, monitor the air quality index and other indicators of smoke levels by checking the [Environment Canada Air quality Health Index](https://weather.gc.ca/airquality/pages/mbaq-001_e.html).

A close-up of a graph

AI-generated content may be incorrect.

* + **Low Risk (1-3) –** Enjoy any usual outdoor activities
  + **Moderate risk (4-6) –** General population - Continue normal activities unless you experience symptoms such as coughing or throat irritation. Monitor AQHI. For those at risk, consider reducing or rescheduling strenuous activities outdoors if you experience any symptoms.
  + **Hi Risk (7-10) -** Monitor AQHI. Limit strenuous, shorten the length of activity, and provide indoor breaks. Consider cancelling public events, postpone or cancel any full-day outdoor field trips (with no indoor option).
* Examples of Permitted Activities: Brief outdoor play (recess), lunch break, outdoor learning, walking, lawn games, beach volleyball, cricket, baseball. Provide an indoor alternative.
* Restricted: Strenuous activity, such as but not limited to running, basketball, soccer, Ultimate, competitive sports/intramurals, and any activity that requires sustained physical exertion.
  + **Very High Risk (10+)** – Monitor AQHI. Avoid all strenuous activities and stay indoors. All school-related outdoor activities (e.g., recess, outdoor education) must be moved indoors. Cancel any public outdoor events at the school. Activities without an indoor alternative—such as field trips or extra-curricular events—should be postponed or cancelled depending on where the trip or event is taking place**.** 
    - **Note: these considerations will not affect safety patrols or crossing guards as the activity is not strenuous and is very short in duration. However, it may affect walking school bust students and staff.**
    - **Walking school bus/crossing guards: N95 masks will be provided to these staff only.**
* Consider taking precautions for those that are at risk when smoke conditions are light to moderate. This is usually indicated by a smoke odour and haziness.
* Ask staff/students to stay indoors with windows and doors closed, using fans to circulate the air and keep the room cool.
* Ask custodial staff to set air-conditioning units to recirculate to avoid drawing smoke indoors including
* For those staff that drive students during the day, ask them to recirculate the air conditioning to avoid drawing smoke inside their cars.
* Limit any strenuous indoor activities if you have been exposed to smoke.
* Direct bus drivers to keep windows and roof hatches closed for the morning routes when temperatures are cooler. However, during the midday and afternoon routes when temperatures are higher, some windows and roof hatches will need to be kept open to allow for enough air flow to mitigate higher temperatures on the buses.
* Check in regularly with workers about their mental and physical health due to the added stress as a result of reduced air quality. When it is not possible for workers to spend time in cooler and cleaner air, provide access to water and encourage them to drink regularly. Even if they do not feel thirsty, drinking water helps to moisten the nose and mouth, which in turn helps the body remove some of the particulates.
* Provide or call for medical assistance when workers have severe symptoms. Any worker who has difficulty breathing should reduce or stop their activities and notify their supervisor. It may become necessary to temporarily relocate the worker to an area with cleaner air or reschedule the work when the air quality improves.

**Staff**:

* Limit outdoor activities, especially if it makes you tired or short of breath.
* Limit any strenuous indoor activities if you have been exposed to smoke.
* Stay inside and keep windows and doors closed. If you have an air conditioner set it to “re-circulate” and keep it running to help filter the air.
* Keep a close watch on at risk individuals (students/staff/volunteers), particularly those at risk. Young children, elderly people and individuals with chronic conditions may be more sensitive to heat or smoke. Watch for symptoms of smoke sensitivity:
  + Irritated eyes
  + Increased mucus production in the nose or throat
  + Coughing, shortness of breath, wheezing, light headedness
  + Difficulty breathing especially with or without exertion
* If you are in your car or truck, keep the windows closed and put the air system on “re-circulate.”
* Any staff/students who have difficulty breathing should reduce or stop their activities and notify their supervisor. It may become necessary to temporarily relocate the staff/student to an area with cleaner air or reschedule the work/event when the air quality improves.
* Talk to your primary health care provider if you have any concerns about your health.

**Custodial**:

* Ensure ventilation systems and air filters are maintained to remove smoke particulates which will help provide clean air to work areas.
* set air-conditioning units to recirculate to avoid drawing smoke indoors.

**School Division: Decision-Making Process and Communication Plan**

Air quality can change significantly throughout the day due to shifting wind patterns, making it difficult to predict conditions more than a few hours in advance. Therefore, it is essential to prioritize student safety and exercise caution and the following decision-making process will apply when air quality is expected to be High (7-10) to Very High (10+):

* If the [AQHI forecasted by Environment Canada](https://weather.gc.ca/airquality/pages/nextHourlies/mbaq-001_e.html) at **6:30am** is **High (7-10)**, all full-day outdoor field trips will be cancelled or postponed, depending on the location and *Pembina Trails Air Quality Recommendations (listed above),* will apply.
* If the [AQHI forecasted by Environment Canada](https://weather.gc.ca/airquality/pages/nextHourlies/mbaq-001_e.html) at **6:30am** is **Very High (10+)**, all outdoor-related activities and extra-curricular events will be cancelled for the entire school day. A Division-wide Messenger email will be sent to all families and staff informing them of this decision. *Pembina Trails Air Quality Recommendations,* (listed above) will apply. The Division will place an air quality alert banner at the top of all school division websites.
* End of Day/After Hours Extra Curricular Activities: Schools and divisional staff must monitor the AQHI forecast throughout the day. Currently, the AQHI forecast updates hourly on the Environment Canada website