

Wildfire Smoke and Outdoor Event Planning

Wildfire smoke is a type of weather event, like heavy rain or strong wind. If you are organizing a multi-hour or multi-day outdoor event in British Columbia from April to October, you should have a contingency plan for wildfire smoke.



Outdoor events should have plans for what to do when there is wildfire smoke.

- Many outdoor events have contingency plans in case of extreme weather.
- Wildfire smoke is a form of extreme weather that can affect the health of event attendees, including staff, participants and spectators. <https://rb.gy/btm7g>
- A contingency plan for wildfire smoke will help with clear decision-making before and during the event.
- A contingency plan will make it easier for everyone to understand what will happen if it is smoky during the event.

Smoke contingency plans should consider:

1 Current and forecasted air quality



2 Susceptibility of the attendees



3 Intensity of the activities



1 Consider the current and forecasted air quality in the region.



- The Air Quality Health Index (AQHI) is updated hourly, and provides health advice based on the conditions. Check the AQHI:
 - Use the WeatherCan smartphone app: <https://rb.gy/6oa0xa>
 - Visit BC Air Quality website: <https://rb.gy/hnutt8>
- If the event is not close to any AQHI monitors, the level of fine particulate matter (PM_{2.5}) can be used to indicate the AQHI. To find out the current PM_{2.5} level closest to the event visit the AQ Map website, which is colour-coded to the AQHI values: <https://rb.gy/pkg7rl>
- Air quality warnings are issued daily and indicate whether smoke is expected to reach levels that might affect health. You can subscribe to receive air quality information in your region:
 - Lower Mainland: <https://rb.gy/en1cb>
 - Outside Lower Mainland: <https://rb.gy/xau78t>
- The BC Asthma Prediction System provides the maximum expected AQHI based on Environment Canada wildfire smoke forecasts for the next 24 and 48 hours. <https://rb.gy/xhrywr>



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2 Consider the susceptibility of the event attendees.



Some people are more affected by wildfire smoke than others, including:

- Those with lung conditions, such as asthma and chronic obstructive pulmonary disease (COPD)
- Those with other chronic health conditions such as heart disease, diabetes, or mental illnesses
- Older adults
- People who are pregnant
- Infants and young children

3 Consider the intensity of the expected activities.



- People inhale more wildfire smoke when they are exercising because they breathe more rapidly and deeply. This is especially true for children, who breathe faster than adults.

<https://rb.gy/gy32ev>

Events with susceptible attendees who are engaged in strenuous activities should develop more stringent contingency plans.

Additional considerations for events during smoky conditions:

- Consider having low-cost sensors on hand to monitor air quality at the event. <https://rb.gy/eatcri>
- Clearly communicate the potential health risks to attendees.
- Advise attendees to monitor their health and take steps to reduce the impacts of wildfire smoke. <https://rb.gy/btm7g>
- Consider providing a cleaner air option at the event (e.g., a cleaner air tent at an outdoor concert).
- Consider making respirators available for attendees. <https://rb.gy/2qp3x>
- Document a medical emergency plan, with arrangement for timely access to emergency health services if needed.



The AQHI can help you decide what actions to take depending on the smoke conditions, the susceptibility of attendees, and the event activities. See Table 1.

1-HOUR PM _{2.5} ($\mu\text{g}/\text{m}^3$)	AQHI	AQHI RISK CATEGORY	EVENTS WHERE SUSCEPTIBLE PEOPLE ARE ENGAGED IN STRENUOUS ACTIVITIES	OTHER OUTDOOR EVENTS
0 – 10	1	LOW	• Normal outdoor air quality for BC	• Normal outdoor air quality for BC
11 – 20	2			
21 – 30	3			
Whenever wildfire smoke is affecting air quality, advise attendees to monitor for symptoms and support those with symptoms to take breaks, seek cleaner air, or get medical attention if needed.				
31 – 40	4	MODERATE	• Consider rescheduling or moving indoors with filtered air • Reduce intensity or length of activities	• Proceed with caution
41 – 50	5			
51 – 60	6			
61 – 70	7	HIGH	• Move indoors with filtered air • Cancel or postpone event if moving indoors is not possible	• Consider rescheduling or moving indoors with filtered air • Reduce intensity or length of activities
71 – 80	8			
81 – 90	9			
91 – 100	10			
101+	10+	VERY HIGH		• Move indoors with filtered air • Cancel or postpone event if moving indoors is not possible

TABLE 1: Recommended actions for outdoor events based on the Air Quality Health Index (AQHI), attendee susceptibility, and activity level.

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