

Summary Wildfire Smoke Guidance for Closing Schools

This is a summary of the Washington State Departments of Health and Ecology guidance for canceling or moving outdoor children's activities and closing schools when smoke may be a health threat. For more information: [Wildfire Smoke Guidance for Canceling Outdoor Events or Activities and Closing Schools](#).

Health effects from smoke

Symptoms of wildfire smoke exposure range from minor irritation, such as burning eyes, runny nose and coughing, to life threatening.

Sensitive populations include people with heart and lung diseases, people with respiratory infections, people with diabetes, people 18 and younger or older than 65, pregnant people, people of color, tribal and indigenous people, and people with low income. Children with pre-existing diseases, such as asthma and diabetes, are especially at-risk for experiencing adverse health effects from smoke exposure.

Factors to consider for school closures

- What is the forecast for how long wildfire smoke levels will remain high?
- Have all options to improve indoor air quality been attempted?
- Are students and staff who are sensitive to smoke allowed to stay home if it is safer?
- Is it safe to walk or bike to school?
- Where will children be relocated if schools are closed? Is the air quality better there?

(More in full guidance report)

Measuring wildfire smoke levels

The concentration of PM_{2.5} – particles less than 2.5 micrometers in diameter – is the most useful measurement of smoke levels to protect health. PM_{2.5} concentrations are reported across six health hazard levels in the Air Quality Index.

Current outdoor PM_{2.5} levels from agency monitors are available as Air Quality Index (AQI) values that are updated hourly on the [Washington Smoke Blog](#) and [EPA's AirNow App](#). Forecasts are often available during wildfire season on the WA Smoke Blog and Washington State Department of Ecology's [Smoke Forecast website](#).

Low-cost sensors can be used to take PM_{2.5} measurements indoors to check indoor air quality and outside when there is not a nearby agency monitor, though these are less accurate than agency monitors and uncorrected sensor data should not be directly compared to PM_{2.5} action levels. Publicly reported PM_{2.5} outdoor sensor measurements with an applied correction factor are also available on the WA Smoke Blog.

For more information:

- [Air Pollution and School Activities Guide](#)
- [Improving Ventilation and Indoor Air Quality during Wildfire Smoke Events](#)
- [DOH Smoke from Fires](#)



When outdoor forecasted 24-hour or NowCast PM_{2.5} concentrations:

- Equal or exceed 35.5 µg/m³ (AQI value 101, "Unhealthy for Sensitive Groups" category or worse), modify duration or limit intensity of children and youth outdoor activities, move them to an area with safer air quality, or consider canceling depending on the length of the activity.
- Equal or exceed 55.5 µg/m³ (AQI value 151, "Unhealthy" category or worse), cancel children and youth outdoor activities or move them to an area with safer air quality.

When school is in session and indoor PM_{2.5} concentrations:

- Equal or exceed 150.5 µg/m³ (indoor equivalent to AQI value 201, "Very Unhealthy" category or worse), discuss school closure with administrators.

Washington Guide for Public Health Actions for Wildfire Smoke

This guide is designed for air quality, public health, and other officials making local decisions.



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Air Quality Index	Recommended Public Health Actions Check current and forecast air quality at enviwa.ecology.wa.gov
Good (0-50)	<p>Prior to wildfire season:</p> <ul style="list-style-type: none"> • Coordinate a local plan for public health actions and distribute preparedness information to the public. • Identify indoor spaces where individuals will seek cleaner air during wildfire smoke events and develop plans to protect indoor air quality, including filtration. <ul style="list-style-type: none"> ○ Indoor spaces used by sensitive groups, such as schools, child care facilities, and long-term care facilities. ○ Community cleaner air settings, such as libraries. ○ Temporary cleaner air shelters. <p>During wildfire season:</p> <ul style="list-style-type: none"> • Monitor wildfires, smoke forecasts, and air quality at WA Smoke Blog. • If forecasts predict smoke in your area, review the Washington Wildfire Response document for Severe Smoke Episodes and the Wildfire Smoke Guide for Public Health Officials.
Moderate (51-100)	<p>Above recommendations, plus:</p> <ul style="list-style-type: none"> • Distribute health information to the public, including steps to take with health advisory categories Washington Air Quality Guide for Particle Pollution. <ul style="list-style-type: none"> ○ Refer to the WA Smoke Blog for information about wildfires, smoke forecasts, and air quality. ○ Identify and focus outreach efforts for sensitive groups. • Coordinate with public health partners to follow recommended public health actions. • Recommend following the Washington Children and Youth Activities Guide for Air Quality. • For outdoor workers, start following WA Department of Labor and Industries' requirements.
Unhealthy for Sensitive Groups (101-150)	<p>Above recommendations, plus:</p> <ul style="list-style-type: none"> • Recommend sensitive groups take steps to reduce exposure (limit time outside, avoid strenuous outdoor activity, and follow tips for cleaner indoor air). • Recommend sensitive groups spend time in a cleaner air setting in the community, such as a library, if they cannot maintain cleaner air at home. • Modify duration or limit intensity of children and youth outdoor activities, move them to an area with safer air quality, or consider canceling depending on the length of the activity. See Washington Children and Youth Activities Guide for Air Quality for specific guidance. • For an extended duration of smoke, consider opening a cleaner air shelter for sensitive groups.
Unhealthy (151-200)	<p>Above recommendations, plus:</p> <ul style="list-style-type: none"> • Recommend everyone take steps to reduce exposure (limit time outside, avoid strenuous outdoor activity, and follow tips for cleaner indoor air). • Recommend everyone spend time in an identified cleaner air setting in the community, such as a library, if they cannot maintain cleaner air in their residence. • Cancel children and youth outdoor activities or move them to an area with safe air quality. • Consider canceling outdoor public events and activities: Wildfire Smoke Guidance for Canceling Outdoor Events or Activities and Closing Schools. • For an extended duration of smoke, consider opening a cleaner air shelter for the public.
Very Unhealthy (201-300)	<p>Above recommendations, plus:</p> <ul style="list-style-type: none"> • Strongly recommend everyone take steps to reduce exposure (stay inside and filter indoor air to keep it cleaner; go elsewhere for cleaner air if needed and possible). • Cancel outdoor public events and activities: Wildfire Smoke Guidance for Canceling Outdoor Events or Activities and Closing Schools. • If school is in session, discuss school closure with administrators if indoor air cannot be kept lower than PM_{2.5} 150.5 µg/m³ (AQI value of 201): Wildfire Smoke Guidance for Canceling Outdoor Events or Activities and Closing Schools. • Distribute NIOSH-approved particulate respirators, such as N95 masks, as available, for limited use outside. Include training material for proper fit and use. • For an extended duration of smoke, consider recommending that sensitive groups voluntarily relocate to an unimpacted area.
Hazardous (>300)	<p>Above recommendations, plus:</p> <ul style="list-style-type: none"> • For an extended duration of smoke, consider recommending that everyone voluntarily relocate to an unimpacted area.

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