

PARK COUNTY
COMMUNITY WILDFIRE
SMOKE PREPAREDNESS AND
RESPONSE PLAN

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Park County Community Wildfire Smoke Preparedness & Response Plan

Summary

This Community Wildfire Smoke Preparedness and Response Plan,

- Describes how wildfire smoke impacts Park County residents and visitors including at-risk and vulnerable populations;
- discusses the various ways Park County will communicate and notify the public about fire, smoke impacts, and air quality;
- provides guidance to individuals, organizations, schools and businesses on how to prepare for and respond to unhealthy air days;
- and creates a framework for creating smoke ready communities across Park County through recommended projects and activities.

Introduction

Over the past 30-40 years, wildfires in the western United States have worsened by nearly every metric; from the number, size, and severity of fires to the length of the wildfire season. According to the 2017 Montana Climate Assessment, over the next century, fire season is expected to get longer with smoke waves (two or more days of unhealthy air) likely to be longer, more intense and more frequent. The message is clear. Now is the time to prepare for living safely with wildfire smoke.

This plan is intended to be a guide for the whole community, from individuals to organizations and decision-makers responsible for maintaining safe environments in our schools, care facilities and at work. Through participation in public education, mitigation strategies, and a coordinated response plan, all of Park County's communities can become Smoke Ready.

Local Air Quality and Wildfire Smoke Risk

Air quality is a measure of how clean or polluted the air is. Monitoring air quality is important because polluted air can be bad for our health – and the health of the environment. We measure air quality using two different types of air sensors or monitors. The U.S. Environmental Protection Agency maintains a network of expensive “regulatory grade” monitors which are frequently calibrated and maintained by state and local agencies. The closest of these monitors to Park County is in Bozeman. The other type of air sensors, such as those sold by Purple Air; are less expensive, less accurate and readily available to the public.

There are a number of Purple Air sensors deployed in Park County, primarily in Livingston, Emigrant and Gardiner. Expanding this crowd sourced network in Park County is one goal of this plan. When used together, the EPA’s regulatory network of sensors and the crowd sourced networks such as Purple Air, can provide information needed to adapt your activities when air quality is poor. For more information about air quality sensors, visit the [EPA’s Air Sensor Toolbox](#).

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To understand the data from air quality sensors, you must first speak their language which is the Air Quality Index or AQI. What is the U.S. Air Quality Index (AQI)?

The U.S. AQI is EPA’s index for reporting air quality.

How does the AQI work?

Think of the AQI as a yardstick that runs from 0 to 500. The higher the AQI value, the greater the level of air pollution and the greater the health concern. For example, an AQI value of 50 or below represents good air quality, while an AQI value over 300 represents hazardous air quality.

AQI Basics for Ozone and Particle Pollution

Daily AQI Color	Levels of Concern	Values of Index	Description of Air Quality
Green	Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Orange	Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.

AQI Basics for Ozone and Particle Pollution

Daily AQI Color	Levels of Concern	Values of Index	Description of Air Quality
Red	Unhealthy	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Purple	Very Unhealthy	201 to 300	Health alert: The risk of health effects is increased for everyone.
Maroon	Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

For each pollutant an AQI value of 100 generally corresponds to an ambient air concentration that equals the level of the short-term national ambient air quality standard for protection of public health. AQI values at or below 100 are generally thought of as satisfactory. When AQI values are above 100, air quality is unhealthy: at first for certain sensitive groups of people, then for everyone as AQI values get higher.

The AQI is divided into six categories. Each category corresponds to a different level of health concern. Each category also has a specific color. The color makes it easy for people to quickly determine whether air quality is reaching unhealthy levels in their communities.

See the [Activity Guides](#) to learn ways to protect your health when the AQI reaches unhealthy levels.

Five major pollutants

EPA establishes an AQI for five major air pollutants regulated by the Clean Air Act. Each of these pollutants has a national air quality standard set by EPA to protect public health:

- ground-level ozone
- particle pollution (also known as particulate matter, including PM2.5 and PM10)
- carbon monoxide
- sulfur dioxide
- nitrogen dioxide

Using the Air Quality Index

Technical Assistance Document for the Reporting of Daily Air Quality – the Air Quality Index (AQI)

Air quality sensors provide data using a scale called the Air Quality Index.

that are regularly a scale called the Air Quality Index or AQI. The

The AQI is a standardized system used globally to measure and communicate the quality of air in a specific location. It provides valuable information about the concentration of key air pollutants, helping the public and relevant agencies assess the safety of outdoor air. The by a system of public agency monitors accessible through the AirNow.gov website. The closest The provided data, acquired through a network of high-quality air quality monitoring instruments from the EPA, often referred to as regulatory-grade monitors, employ a range of sophisticated technologies to measure various air pollutants and are displayed as a number between 0 and 500. These instruments include chemiluminescence analyzers, gas chromatographs, and mass spectrometers, depending on the pollutant being measured. They adhere to strict quality control standards and are used for regulatory compliance and health assessment purposes. The data from EPA instruments are used for regulatory purposes and public health assessments.

Interpretation of AQI:

- **0-50 (Good):** Air quality is excellent, and it poses little or no risk to health. Enjoy outdoor activities without concerns.
- **51-100 (Moderate):** Air quality is acceptable; however, sensitive individuals may experience minor irritations. Most people can go about their usual activities.
- **101-150 (Unhealthy for Sensitive Groups):** Sensitive individuals, such as children, the elderly, and those with respiratory conditions, may experience health effects. It's advisable for this group to limit outdoor activities.
- **151-200 (Unhealthy):** Everyone may begin to experience health effects. The general public should reduce outdoor activities, and sensitive groups should avoid them.
- **201-300 (Very Unhealthy):** Health alert: everyone may experience more serious health effects. Avoid outdoor activities, especially strenuous ones.
- **301-500 (Hazardous):** Health warning of emergency conditions. The entire population is more likely to be affected. Stay indoors, and avoid all outdoor activities.

Community members who want to find air quality levels within their area or community can access this information through various sources and platforms. Here are some commonly used resources:

- **Air Quality Index (AQI) Websites/Apps:**

- **AirNow:** The AirNow website and mobile app provide real-time air quality information for locations across the United States. Users can search for their specific area and access AQI data, forecasts, and health recommendations.
- **Weather Apps:** Many weather apps, such as The Weather Channel, AccuWeather, and Weather Underground, include AQI data as part of their services. Users can enter their location to view current air quality conditions.
- **IQAir:** IQAir provides an interactive air quality map that displays data from its global network of air quality monitors. Users can search for their location and access real-time air quality information.
- **EPA Resources:**
 - The U.S. Environmental Protection Agency (EPA) provides resources for accessing air quality data. You can visit the EPA's AirData website (<https://www.airnow.gov/>) to find air quality information and download data reports.

Park County's Air Quality Risk is Increasing

The following maps highlight the increased risk Park County is facing due to worsening wildfire risk driven by climate change. Image 1 shows Park County in Level 4 of wildfire smoke risk from 2004-2009 and predicted to move to the highest level of wildfire smoke risk (Level 5) by 2046.

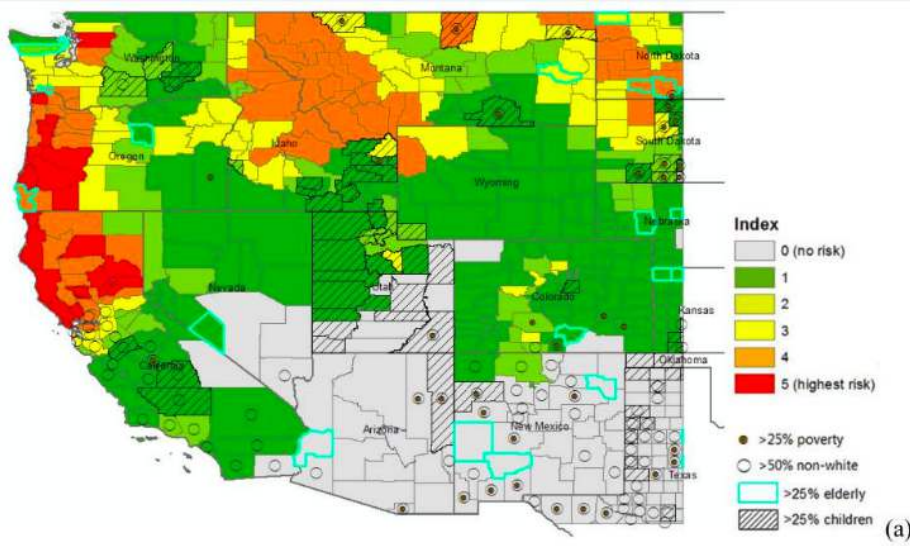


Image 1

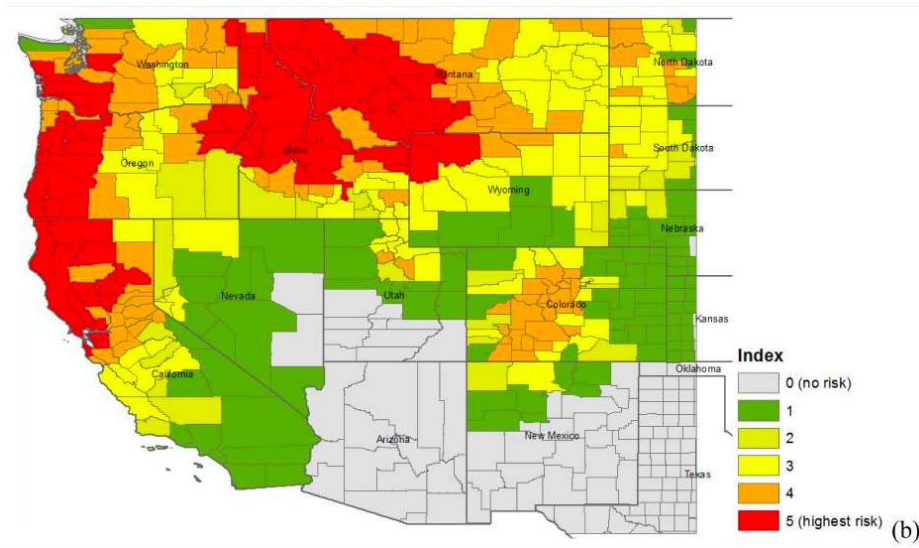


Image 2

Fire Smoke Risk Index during fire seasons (May - October). Panel (a) is for present day (2004 - 2009) and panel (b) is for future (2046 - 2051) under climate change.

Health Risks from Wildfire Smoke and Unhealthy Air Days

[Extensive scientific evidence](#) has demonstrated health effects in response to short-term exposure ranging from eye and respiratory tract irritation to more serious effects, including reduced lung function, pulmonary inflammation, bronchitis, worsening of asthma and other lung diseases, and worsening of cardiovascular diseases including heart failure and pre-mature death. Although a large population can be exposed to smoke during a wildfire event, most healthy adults and children will recover from wildfire smoke exposure. Certain lifestages and populations may, however, be at greater risk of experiencing health effects, including people with respiratory or cardiovascular diseases, children and older adults, pregnant women, people of lower socioeconomic status and outdoor workers.

What science cannot tell us yet are what the personal long-term effects from cumulative exposure to unhealthy air will be 10 – 20 years from now. [A 2017 study](#) of the prolonged smoke exposure in Seely Lake, MT that year showed a significant decrease in lung function up to two years later. While we wait for definitive long-term data to speak to how prolonged and repeated exposure to unhealthy air impacts us, especially our children and other at-risk groups,

we should listen to our Public Health professionals when they tell us to minimize our exposure to unhealthy air as much as possible.

At-Risk Groups

[According to the EPA](#), Evidence indicates that the risk of fine particle (smoke)-related health effects varies throughout a lifetime. Risk is generally higher during childhood, lower in young adulthood, and greater in middle age through old age. Therefore, certain lifestages (e.g., children, older adults) and populations (e.g., people with preexisting respiratory and cardiovascular disease) should be particularly diligent about limiting exposure to wildfire smoke.

- **People with asthma and other respiratory diseases.**
 - More than 25 million people in the United States experience chronic lung disease such as asthma, with another 16 million experiencing chronic obstructive pulmonary disease.
 - Air pollution, such as wildfire smoke, can lead to breathing difficulties and trigger a worsening of their disease. Studies well document that this group is at increased risk of emergency room visits and hospitalization following an unhealthy air event.
- **People with cardiovascular disease.**
 - Cardiovascular diseases are the leading cause of death in the United States. Diseases of the circulatory system (e.g., high blood pressure, heart failure, vascular diseases such as coronary artery disease, and cerebrovascular conditions) can put individuals at increased risk of cardiovascular-related events triggered by air pollutants.
 - Following exposure to particle pollution, people with chronic heart disease may experience one or more of the following symptoms;
 - Palpitations, unusual fatigue,
 - Lightheadedness,
 - Shortness of breath,
 - Chest tightness,
 - Pain the chest, neck or shoulder.
- **Children (<18 years of age).**
 - All children, even those with no pre-existing illness or chronic conditions, are considered sensitive to air pollution, including wildfire smoke. Compared to adults, children spend more time outdoors, tend to engage in more vigorous activity, and inhale more air (and therefore more smoke) per pound of body weight – all of which can affect the developing lungs. For these reasons, it is important to try to limit children’s vigorous outdoor activities during wildfire events.
 - Symptoms of wildfire smoke inhalation in children include: coughing, wheezing, difficulty breathing, and chest tightness.

- Air pollution from wildfires can exacerbate asthma symptoms and trigger asthma attacks.
- Children may also experience significant emotional distress resulting from anxiety and grief following a wildfire. It is important to consider not only the potential physical health implications of wildfire smoke on children, but also the potential longer-term psychological implications.
- **Pregnant people.**
 - During pregnancy, physiologic changes, such as higher respiratory rates and increases in blood and plasma volumes, increases a person’s vulnerability to environmental exposures.
 - During critical windows of human development, exposure to wildfire smoke may harm the developing fetus.
 - A few studies have examined potential health effects of wildfire smoke exposure during pregnancy, providing some evidence of impacts on birth outcomes (e.g., reduced birth weight), and that psychosocial stress from the wildfire event itself could affect the developing fetus (Kumagai et al. 2004; Holstius et al. 2012).
- **Older Adults.**
 - Older adults are at increased risk of health effects from short-term exposures to wildfire smoke because of their higher prevalence of pre-existing lung and heart diseases, and because important physiologic processes, including defense mechanisms, decline with age.
 - Epidemiologic studies have reported greater risks of emergency department visits, hospital admissions, and mortality associated with short-term exposures to fine particle pollution in older adults (U.S. EPA, 2009).
- **Outdoor Workers.**
 - Working outdoors during periods of wildfire smoke could result in a range of health effects depending on the underlying health status of the worker. Effects of exposure to wildfire smoke range from eye and respiratory tract irritation to the triggering of an asthma exacerbation or cardiovascular event.

At-risk Lifestage/Population	Rationale and Potential Health Effects from Wildfire Smoke Exposure
People with asthma and other respiratory diseases	<p>Rationale: Underlying respiratory diseases result in compromised health status that can result in the triggering of severe respiratory responses by environmental irritants, such as wildfire smoke.</p> <p>Potential health effects: Breathing difficulties (e.g., coughing, wheezing, and chest tightness) and exacerbations of chronic lung diseases (e.g., asthma and COPD), leading to increased</p>

	medication usage, emergency department visits, and hospital admissions.
People with cardiovascular disease	<p>Rationale: Underlying circulatory diseases result in compromised health status that can result in the triggering of severe cardiovascular events by environmental irritants, such as wildfire smoke.</p> <p>Potential health effects: Triggering of ischemic events, such as angina pectoris, heart attacks, and stroke; worsening of heart failure; or abnormal heart rhythms could lead to emergency department visits, hospital admissions, and even death.</p>
Children (< 18 years of age)	<p>Rationale: Children’s lungs are still developing, and there is a greater likelihood of increased exposure to wildfire smoke resulting from more time spent outdoors, engagement in more vigorous activity, and inhalation of more air per pound of body weight compared to adults.</p> <p>Potential health effects: Coughing, wheezing, difficulty breathing, chest tightness, decreased lung function in all children. In children with asthma, worsening of asthma symptoms or heightened risk of asthma attacks may occur.</p>
Pregnant people	<p>Rationale: Pregnancy-related physiologic changes (e.g., increased breathing rates) may increase vulnerability to environmental exposures, such as wildfire smoke. In addition, during critical development periods, the fetus may experience increased vulnerability to these exposures.</p> <p>Potential health effects: Limited evidence shows air pollution-related effects on pregnant women and the developing fetus, including low birth weight and preterm birth.</p>
Older adults	<p>Rationale: Higher prevalence of pre-existing lung and heart disease and decline of physiologic process, such as defense mechanisms.</p> <p>Potential health effects: Exacerbation of heart and lung diseases can lead to emergency department visits, hospital admissions, and even death.</p>
People of low socio-economic status	<p>Rationale: Less access to health care, could lead to higher likelihood of untreated or insufficient treatment of underlying health conditions (e.g., asthma, diabetes), and greater exposure to wildfire smoke resulting from less access to measures to reduce exposure (e.g., air conditioning).</p>

	<p>Potential health effects: Greater exposure to wildfire smoke resulting from less access to measures to reduce exposure, along with higher likelihood of untreated or insufficiently treated health conditions could lead to increased risks of experiencing the health effects described above.</p>
<p>Outdoor workers</p>	<p>Rationale: Extended periods of time exposed to high concentrations of wildfire smoke.</p> <p>Potential health effects: Greater exposure to wildfire smoke can lead to increased risks of experiencing the range of health effects described above.</p>

Smoke Ready Communications Plan

Effective communication during wildfire smoke events is critical to ensure the safety and well-being of Park County residents. This communications plan outlines strategies and tactics to address smoke-related messaging before, during, and after such events. The plan also includes the establishment of a Wildfire Smoke Messaging Group through NIXLE Emergency Communications, educating the community on smoke-related risks and mitigation strategies, and managing an All-Hazard section on the county website. This communication strategy is to be implemented by Park City-County Health Department.

Before a Smoke Event

- **Objective:** To proactively prepare the community for potential smoke events and establish channels for timely information dissemination.
- **Tactics:**
 - **Establish Wildfire Smoke Messaging Group:**
 - Create a dedicated NIXLE Emergency Communications group for Public Health emergency preparedness.
 - Encourage residents to subscribe to the group for real-time notifications.
 - **Public Awareness Campaign:**
 - Develop and distribute regular preparedness information through email newsletters, NIXLE emergency messaging group, county digital trapline, and social media content about the risks of wildfire smoke and how to prepare by referencing the standard operating procedures referenced below.
 - Engage community through in-person events as well as digital content on smoke safety and preparedness, including making their own HEPA filter through box fan method.
 - **Smoke Mitigation Resources:**

- Compile and share resources on creating indoor air quality improvements, such as air purifiers and sealing windows.
- Provide a list of local resources for obtaining masks and air quality monitors.

During a Smoke Event

- **Objective:** To keep residents informed and safe during an active smoke event.
- **Tactics:**
 - **Regular Updates through NIXLE:**
 - Issue real-time updates on smoke conditions, air quality, and evacuation orders via NIXLE.
 - Coordinate with local fire agencies to ensure consistent messaging.
 - **Social Media Engagement:**
 - Maintain an active social media presence on Park County and Park City-County Health Department Facebook pages to provide updates, share safety tips, and address community concerns. Share information on community Facebook messaging pages, as well, including ‘This is Really Livingston’, ‘Gardiner/Mammoth Community Messaging Board’ and ‘Shields Valley Residents’.
 - **Emergency Alerts:**
 - Activate NIXLE emergency alerts for severe smoke conditions, evacuations, or other critical situations, if necessary.

After a Smoke Event

- **Objective:** To support recovery efforts and provide post-event information.
- **Tactics:**
 - **Recovery Information:**
 - Share information on post-smoke recovery, including air quality testing, cleanup, and health resources through social media, County website, as well as local and regional press and media, as necessary.
 - **Community Feedback:**
 - Solicit feedback from residents on the county's response to the smoke event through surveys, distributed on social media, website, as well as within smoke related messaging group.
 - **Lessons Learned:**
 - Conduct an internal review to identify areas for improvement in smoke communication and response.

Standard Practice for Smoke Related Messaging

These Standard Operating Procedures aim to establish a structured approach to both regular email newsletter distribution and emergency text messaging through NIXLE during smoke events, ensuring timely and effective communication with the Park County community.

I. Email Newsletter - Preparedness Items

- **Objective:** To provide regular and relevant preparedness information to the community via the email newsletter.
- **Frequency:** Two preparedness items per month.

Outside Wildfire Smoke Season (October-April):

- **Topic Selection:**
 - Refer to Park County Public Health Emergency Preparedness Communication plan for guidelines on general preparedness information sharing to be disseminated during this time.

During Wildfire Smoke Season (May-September):

- **Topic Selection:**
 - Focus on topics specific to wildfire smoke, such as indoor air quality, mask usage, and creating a clean indoor air space.
- **Content Creation:**
 - Develop articles, guides, and tips that address the health risks associated with wildfire smoke and how residents can protect themselves.
- **Newsletter Delivery:**
 - Ensure that newsletters are sent at the beginning and middle of the month (first and third Friday of the month) to provide timely information during the peak wildfire season.
 - During smoke emergencies, the same message should be shared within NIXLE group (reference below) and email messaging.

II. Emergency Text Groups - Smoke Events

- **Objective:** To use emergency text groups to disseminate critical information during smoke events and encourage necessary responses from individuals and agencies.
- **Activation Criteria:** Emergency text groups should be activated when smoke events pose a significant threat to public safety or air quality is hazardous (greater than 100 AQI, the sensitivity threshold for vulnerable groups).
- **Message Content:**
 - **Air Quality Updates:**
 - Regularly update the community on air quality conditions.

- Include specific air quality index (AQI) values and health recommendations.
- **Evacuation Orders:**
 - If evacuation orders are issued, clearly communicate the affected areas and evacuation routes.
 - Provide information on shelters and resources for evacuees.
- **Safety Tips:**
 - Share safety recommendations, such as staying indoors, using masks, and creating clean indoor air spaces.
 - Provide directions to Park County Community Clean Air rooms in each community.
- **Resource Information:**
 - Disseminate information on the availability of masks, air purifiers, and community support services.
- **Community Engagement:**
 - Encourage residents to report smoke-related issues and concerns.
 - Request that individuals follow local guidelines and cooperate with emergency responders.
- **Distribution:** Send emergency text messages via the NIXLE Emergency Communications system to registered subscribers.
- **Monitoring and Updates:**
 - Continuously monitor the situation and air quality data to provide real-time updates.
 - Regularly review and adapt message content based on changing conditions.
- **Deactivation:** Deactivate the emergency text groups when smoke events have subsided and air quality has returned to safe levels (less than 150 AQI). Return to routine email messaging protocol.

All-Hazard Section on County Website

- **Objective:** To provide a centralized information hub for various hazards, including wildfire smoke.
- **Tactics:**
 - **Website Development:**
 - Create a dedicated "All-Hazard" section on the county website with subpages for different types of hazards.
 - Include the following information for wildfire smoke specific mitigation;
 - Air Quality
 - Smoke and Your Health
 - Wildfire Information
 - How to Wear a Respirator
 - Creating Healthy Indoor Air

- Preventing Wildfire
- Business Preparedness
- Evacuation
- Community Alerts-Nixle
- **Content Management:**
 - Populate the All-Hazard section with general information, safety tips, and resources for different types of hazards, including wildfire smoke.
- **Regular Updates:**
 - Ensure that all content is regularly updated to reflect current best practices and information.

Smoke Ready Community Preparedness Plan

The Smoke Ready Preparedness Plan describes measures the whole community can use to mitigate the impacts of unhealthy air days. Individuals, families, businesses and other organizations can minimize the impacts of smoke and unhealthy air by taking steps ahead of time. These steps can include education, creating alternative work/play plans, minimizing smoke intrusion indoors and creating clean air spaces as a refuge on particularly bad air days.

Preparedness is what we do ahead of time so we are ready to respond to all-hazards. Below is an outline of elements to consider addressing in your Smoke Ready Preparedness Plan. This smoke plan.

Local Government:

- Establish a Smoke-Ready communications plan, including emergency communications, to effectively share information with businesses, media, residents, schools, and other establishments.
- Develop and regularly update a smoke-readiness policy that outlines roles, responsibilities, and strategies for managing smoke events.
- Provide resources and guidelines for establishments and communities to create indoor air quality measures, such as air purifiers, to improve employee and customer comfort during smoke incidents.
- Integrate smoke readiness into the county's emergency response plans and implement community preparedness activities.
- Draft employee guideline plans for county departments to adhere to with regard to outdoor employees working in wildfire smoke conditions. This plan should be public on the all-hazard section of the Park County website to serve as a guideline for other businesses/agencies to model for their own policies for outdoor workers.

Businesses:

- Encourage local businesses to develop smoke-response plans that include strategies for employee safety, potential business interruptions, and communication with customers.

Schools:

- Establish smoke-ready protocols, including guidelines for outdoor activities, considerations for air filtration systems, and procedures for communicating with parents and students during smoke events.
- Identify students who are more vulnerable to smoke events and ensure their families have necessary information to maximize safety during major smoke events.

Social Service Agencies:

- Coordinate with social service agencies to identify and assist vulnerable populations, such as the elderly, young children, and individuals with pre-existing health conditions, during smoke events.
- Develop strategies to ensure access to clean indoor air for individuals who may not have suitable living conditions.

3. Actions to Take:**Local Government (Public Health/Emergency Services):**

- Monitor air quality levels using established air quality monitors from Bozeman, West Yellowstone, and Billings, as well as the new Purple Air Sensors in Clyde Park and Emigrant to provide real-time updates to the public during smoke events.
- Establish, promote, and maintain smoke specific messaging group in email newsletter. Ensure at least two pieces of information are distributed in this group per month, even outside of wildfire season. If no active smoke to address, use non-emergent times to communicate individual preparedness advice, smoke education, or resources for community members.

Businesses:

- Implement smoke-readiness plans, including the distribution of N95 masks to employees, remote work options when feasible, and guidelines for maintaining indoor air quality.

Schools:

- Adjust outdoor activities based on air quality indices and provide guidelines for minimizing exposure to smoke for students and staff.
- Communicate with parents through established channels about school closures, remote learning options, and health recommendations.
- Maintain open lines of communication with families who have children who are vulnerable to smoke events. Serve as a reference point for such families, referring them to health care or Park City-County Health Department when necessary.

Social Service Agencies:

- Identify individuals who may need assistance during smoke events and provide resources such as masks, air purifiers, and safe indoor spaces.
- Serve as a reference point for individuals who have established care with your agency, referring them to health care or Park City-County Health Department when necessary.

Smoke Ready Response Plan

Activation

The Smoke Ready Response Plan provides guidance for local jurisdictions within Park County, Montana, in responding to wildfire smoke events based on the Air Quality Index (AQI). The primary goal of this response plan is to notify and inform the public about potentially hazardous smoke conditions and to provide guidance on protecting themselves.

Activation Criteria

This response plan is activated when the AQI exceeds 100, indicating deteriorating air quality. The specific activation levels are as follows:

- **AQI > 100:** Activation by Park County PHEP (Public Health Emergency Preparedness) or OEM (Office of Emergency Management) of whole community notification, emphasizing sensitive groups.
- **AQI > 150:** Continue wide public notification, activate NIXLE smoke messaging.
- **AQI > 200:** Very Unhealthy air quality, activation of the Public Information Hotline Number and Park County Community Clean Air Hospitality Rooms.
- **AQI > 300:** Activation of Public Health Warning of Emergency Smoke Conditions, potential emergency declarations, and notification of state agencies.

Notifications

The notifications are based on the AQI levels and are intended to inform and guide both sensitive groups and the general public:

- **AQI > 100 (Sensitive Groups):**
 - Notify schools, daycares, long-term care facilities, hospitals, and other sensitive groups that the air quality is likely to affect their communities.
 - Communicate recommended actions to protect at-risk individuals as detailed in the Communications Plan.
 - Remind people how to monitor and find air quality information.
 - Refer to Annex [] for additional public information and guidance.
- **AQI > 150 (General Public):**
 - Message the general public, including sensitive groups.
 - Communicate recommended actions to protect all individuals as detailed in the Communications Plan.
 - Remind people how to monitor and find air quality information.
 - Refer to Annex [] for additional public information and guidance.
- **AQI > 200:**

- Message the public that air quality is now Very Unhealthy.
- Activate the Public Information Hotline Number.
- PHEP or OEM to monitor the situation closely.
- Activate Community Clean Air Hospitality Rooms (designation of a suitable name needed).
- Utilize call-down lists to reach room managers; refer to Annex [] for room manager information.
- Notice the opening of Clean Air Hospitality Rooms.
- Make phone calls to at-risk groups to confirm that smoke plans have been activated.
- Add an annex with organizations and business smoke-ready plans for collaborative development during the off-season.
- Email Points of Contact (POCs) for businesses that have smoke-ready plans with activation reminders.
- **AQI > 300:**
 - Activate a Public Health Warning of Emergency Smoke Conditions.
 - Utilize the Communications Plan to send IPAWS emergency messages.
 - Communicate recommendations for sheltering in place and minimizing physical activity.
 - Consider requesting emergency declarations from local jurisdictions to facilitate emergency funding.
 - Notify the Montana Department of Public Health and Human Services (MT DPHHS) and the Montana Department of Environmental Quality Services (MT DES) of emergency declarations.

Elements of Smoke Ready Response Plans

For all plans, including those for families and businesses, the following elements should be observed:

- **Activation Criteria:** Activate your Smoke Ready Response Plan based on your predetermined AQI level, with a general recommendation of >150 for most families. However, individuals with health conditions should consult with their doctors when creating a response plan.
- **Monitoring Air Quality:** Regularly monitor air quality reports and public health information from the channels listed in the Communications section of this plan.
- **Protective Measures:**
 - Close windows and doors and keep children indoors.
 - If you have an air conditioner, close the outdoor air intake to prevent smoke from entering the home.
 - Protect indoor air quality by using portable air cleaners with HEPA filters and avoid activities that could worsen indoor air quality (e.g., vacuuming, using spray cans, frying or broiling meat, using gas or wood-burning stoves, fireplaces, candles, and cigarettes).

- Seek shelter in another location if conditions inside your home become too hot or smoky, and contact the Park County Health Department for assistance if needed.

The Smoke Ready Response Plan outlines a structured approach to responding to smoke events based on air quality levels, ensuring timely notifications and effective public guidance during wildfire smoke events in Park County, Montana.

Outdoor Activity & Air Quality Guidelines for Schools and Child Care Facilities					
Health Effect Category	Good	Moderate	Unhealthy for sensitive groups*	Unhealthy	Very Unhealthy/ Hazardous
Visibility (miles)	13+	9-13	5-9	2-5	Less than 2
Air Quality Index (AQI)	0-50	51 - 100	101 - 150	151 - 200	201 +
Recess or Other Outdoor Activity (15-30 minutes)	No limitations	No limitations	Keep students with chronic lung or heart conditions indoors. Make indoor space available for all children to be active, especially young children.	Keep all students indoors and limit students to light or moderate activities.	Keep all students indoors and limit students to light activities.
Physical Education Class (1 hour)	No limitations	Monitor sensitive groups and limit their vigorous activities.	Keep students with chronic lung or heart conditions indoors. Limit these students to light activities. Make indoor space available for all students to be active, especially young children. If outdoors, limit students to light or moderate activities.	Conduct P.E. classes in an indoor environment with good air quality and limit students to light or moderate activities.	Conduct P.E. classes in an indoor environment with good air quality and limit students to light activities.
Athletic Events and Practices (2-4 hours)	No limitations	Monitor sensitive groups and limit their vigorous activities.	Students with chronic lung or heart conditions should abstain from outdoor practices and events based on the severity of their condition and sensitivity to smoke. Consider moving practice and events indoors. If events are not cancelled, increase rest periods and substitutions to allow for lower breathing rates.	Reschedule events or relocate to an area with good air quality. Conduct practices in an indoor environment with good air quality and limit students to light activities.	Reschedule/cancel events. Conduct practices in an indoor environment with good air quality and limit students to light activities.

Visit today.sair.mtdeq.us for local air quality conditions and more information.

Examples of Activities

Light Activities: Walking, stretching, playing board/card games, dancing slowly

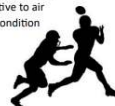
Moderate Activities: Yoga, gymnastics, shooting basketballs, skateboarding, weight training, hiking, biking, golfing

Vigorous Activities: Running/jogging, basketball, football, soccer, swimming, cheerleading, and wheeling your wheelchair

* Please note that the intensity of an activity can vary by person and ability.

***For the purpose of this document, sensitive groups include:**

- **Children (ages 0-17 years).** Children may be more sensitive to air pollution as their lungs are still developing and they may have an unknown underlying health condition.
- **People with chronic conditions.** People with chronic conditions, such as asthma or another respiratory disease, or cardiovascular disease, may be more sensitive to air pollution and should talk with their healthcare provider about managing their condition. People with chronic conditions should be medically managing their condition during air quality that is unhealthy for sensitive groups or worse. Students with asthma should be following their Asthma Action Plan in all conditions.
- **Pregnant people.** During pregnancy, changes to a person's body may increase vulnerability to environmental exposures. Additionally, during critical windows of human development, a pregnant person's prolonged exposure to wildfire smoke may harm the developing fetus.
- **Older adults.** Older adults are at increased risk of health effects from short-term exposures to wildfire smoke because of their higher prevalence of pre-existing lung and heart diseases.



August 2022

MONTANA DPHHS DEQ Montana Department of Environmental Quality

A+ Montana Office of Public Instruction oplmt.gov Elsie Arntzen, Superintendent

Options to Protect Health During a Smoke Event

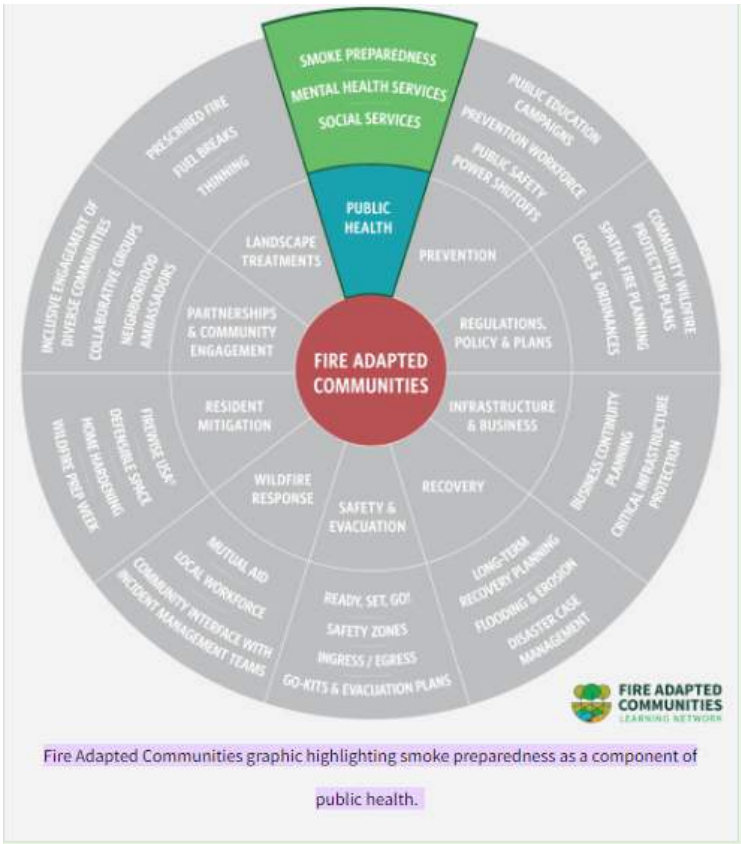
BROCHURE

[Smoke Ready Brochure 2022.pdf - Google Drive](#)

[Protect Your Health During Wildfires \(lung.org\)](http://lung.org)

LINKS





Fire Adapted Communities graphic highlighting smoke preparedness as a component of public health.



BEFORE A WILDFIRE-BE PREPARED

GET READY FOR WILDFIRE SMOKE EVENTS BY PLANNING AHEAD! HERE'S WHAT YOU CAN DO TO PREPARE:

WILDFIRE



KNOW YOUR AIR QUALITY:

Download the South Coast AQMD app and sign up for alerts at www.AirAlerts.org. Download the AQMD Mobile App at www.aqmd.gov/mobileapp



FILTERS AND AIR CLEANERS:

If you have an A/C system, change your filter often (MERV 13 +), or run a portable HEPA purifier.



RESPIRATOR MASKS:

Have a few disposable respirators available (i.e. N-95 or P-100).



MEDICAL PLAN:

If you have heart or lung disease (such as asthma), consult your doctor to make a plan and keep 5+ days of medication on hand.



GENERATOR SAFETY:

If you plan to use a generator during a public safety power shutoff, never use it inside your home. Make sure it's at least 20 ft away from your house outdoors.

Figure 1 - Many communities have developed their own guidance on how to prepare for smoke season. This infographic developed by the South Coast Air Quality Management District is part of a series that details steps that can be taken before, during, and after smoke events in order to reduce exposure and mitigate health impacts.

FIGURE 2 Flowchart for making a building smoke ready.

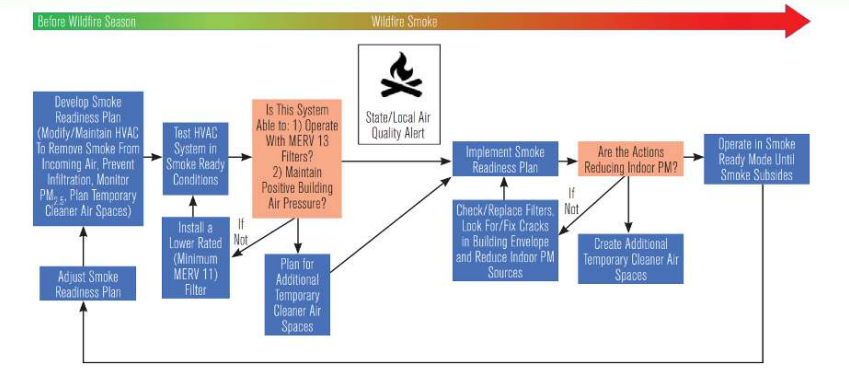


Figure 2: This flowchart for creating smoke-ready buildings was developed by ASHRAE as part of its Planning Framework for Protecting Commercial Building Occupants from Smoke during Wildfire Events. This framework also outlines how to develop a smoke-readiness plan and lists additional resources for communities to prepare for smoke season.