

Smoke Management Rules Statewide Communications Framework In the Context of COVID - 19



October 20, 2021 Update

Background

The 2019 Oregon smoke rules are in effect for the 2021 fall burning season. There is greater interest in burning this year due to the higher volume of slash created by salvage logging after the big wildfires of 2020 and 2021. This increase in burning coincides with the continuing COVID-19 pandemic in Oregon, which is still experiencing a high number of cases. This document provides updated guidance for the 2021 fall burning season, the need for prescribed burning, and what resources people can use to protect themselves from smoke in a time of COVID-19. It also fulfills the requirements placed on the Oregon Department of Forestry by ORS 629-048-0180 to develop and distribute a communication framework through local ODF offices and federal district offices to their respective local public health authorities.

Messaging

As outlined in revised rules approved by the Oregon Board of Forestry and accepted by the Environmental Quality Commission in the spring of 2019, the following information is being communicated about Oregon's smoke rules for the fall burning season. This meets requirements of ORS 629-048-0180.

A. THE PURPOSE AND IMPORTANCE OF PRESCRIBED BURNING

What are the benefits of prescribed burns?

Controlled burns help maintain forest health and reduce the risk of high-intensity, catastrophic wildfires and the large volume of smoke associated with them. A more complete explanation is found in Oregon Administrative Rule 629-048-0020. The Rule states that:

...prescribed burning is an important tool used to reduce forest fuels, re-introduce fire on the landscape, and has been demonstrated to reduce the potential for a fire to start or reduce its severity. It has also been demonstrated that fire suppression actions are more effective and lower in cost in areas with a recent history of burning.

2) As a part of the natural ecology of forestlands, wildfire is neither necessarily good nor bad. In fire-dependent ecosystems, frequent wildfire serves to limit spread of subsequent fires. However, there are a number of undesirable characteristics of unplanned, uncontrolled fires. Among these are threats to public safety, destruction of natural resources and property, and the adverse health effects that can occur from breathing a significant amount of fine particulate matter associated with wildfire smoke.

(3) When areas do not experience fire or other means of reducing forest fuels for extended periods, wildfire hazard increases. The likelihood increases if unplanned ignitions occur, through whatever means, the resulting wildfire will burn at greater intensity and be more difficult to suppress.

(4) Because wildfires typically burn during hotter, drier conditions than those usually planned for prescribed fires, forest fuels are more completely consumed, producing more emissions. Also, wildfires often occur during periods of atmospheric stability, trapping smoke close to the ground where it's more likely to impact humans.

(5) Prescribed burning is an important forest management technique in all of Oregon's forests to reduce forest fuels for the purposes of both short-term and long-term fire prevention and to aid in fire suppression. Prescribed burning is typically conducted when weather conditions allow fine fuels to readily ignite while larger fuels are consumed to a lesser degree than in a wildfire. Resulting emissions are reduced and dissipated quickly, before affecting populated areas.

(6) When forest fuel reduction can be achieved economically without using prescribed burning, that choice is usually favored. Even so, there are often silvicultural or agricultural advantages to prescribed burning, such as site preparation before replanting, nutrient cycling and reduction of pests and disease that may not be achieved by simply removing the forest fuels. For all these reasons described above, the Legislative Assembly (ORS 477.552) and Board of Forestry have found it necessary to maintain prescribed burning as a forest management practice.

B. HEALTH RISKS OF SMOKE FROM WILDFIRE AND PRESCRIBED BURNS

How does smoke effect human health?

Wildfire smoke is a mixture of gases and fine particles from burning trees and other plant material. The gases and fine particles (known as particulate matter or "PM") can be dangerous if inhaled. Smoke can cause the following:

- shortness of breath, asthma attack, or lung irritation
- persistent cough, wheezing, phlegm, scratchy throat or irritated sinuses
- headache
- watery or dry eyes
- irregular heartbeat, chest pain or fatigue
- heart attack

People with chronic heart disease or lung disease, such as asthma and chronic obstructive pulmonary disease (COPD), or those with or recovering from COVID-19 who have compromised health/lung function may be more likely to have serious health effects from smoke.

Who is most likely to have health effects from smoke exposure?

Smoke may worsen symptoms for people who have pre-existing health conditions and those who are particularly sensitive to air pollution. Sensitive groups include:

- infants and children
- persons with asthma or other chronic lung disease
- persons with heart disease
- persons 65 years of age or older
- pregnant women or their unborn child
- smokers, especially those who have smoked for several years
- persons with or recovering from COVID-19

Additional groups may be disproportionately affected because of limited access to cleaner air spaces, limited income needed to invest in keeping indoor air clean, or higher risk of exposure because of where they live or work. These include:

- people who work outdoors
- people who live outdoors

- people with low incomes
- people of color
- Tribal communities

The amount and length of smoke exposure, as well as a person's age and degree of susceptibility, play a role in determining if someone will experience smoke-related health problems. Anyone experiencing serious medical problems during a smoke event should seek medical attention immediately.

How are forestry burning recommendations taking COVID-19 and smoke health risk into consideration?

OHA monitors the capacity of hospitals, healthcare systems, and local public health authorities to continue providing health services and public health protections to our communities throughout the COVID-19 pandemic. This includes the availability of hospital beds, COVID-related hospital admissions, emergency department visits for respiratory illness, COVID-related outbreaks, and laboratory-confirmed cases, among other measures. Exposure to smoke increases the risk of contracting respiratory infections like COVID-19 and can increase the severity of infections. A higher incidence of COVID-19 has been observed in places that have elevated fine particulate matter (PM 2.5) from smoke. COVID-19 vaccines have proven to be safe and highly effective in preventing severe illness and death from COVID-19 infections. OHA recommends that [all people who are eligible](#) receive the full COVID-19 vaccine series, and recommended vaccine [boosters](#). Given the wide availability of COVID-19 vaccines and strong evidence for their safety and effectiveness, OHA recommends their use by all Oregonians who do not have medical conditions precluding their use.

Given the likely benefit of prescribed burns in decreasing the risk of life-threatening wildfires ODF recommends that public and private forest landowners plan burns for the fall of 2021 according to the 2019 prescribed burn rules.

OHA will advise ODF regarding changes in circumstances that may affect the recommendation to continue with the 2019 prescribed burning rules.

Doesn't Oregon already have a protocol for addressing severe smoke episodes?

Oregon's interagency protocol addresses severe smoke episodes caused by wildfires. Those protocols describe the specific roles various government agencies play during wildfires, including providing advance notice of possible smoke movement, monitoring air quality, explaining health risks and issuing health warnings.

The new communications framework described here is intended to provide advance notification to communities of smoke intrusions from prescribed burns. It also encourages smoke-sensitive receptor areas (SSRAs) vulnerable to smoke to ensure they have a plan in place to protect their residents from occasional smoke intrusions from prescribed burns. These burns tend to be more temporary and limited than those from wildfires. Communities may find it convenient to wrap how they will respond to smoke intrusions into plans for how they will help residents cope with wildfire smoke.

What health communication tools are available to inform the public about the effects of smoke, and how to prevent smoke exposure?

The Oregon Health Authority maintains a communication toolkit for partners to help prepare for wildfire smoke and support consistent messaging across the state. It can be adapted for use in the prescribed burning context. The entire toolkit can be found at www.healthoregon.org/cerc (click on "Wildfire Smoke"). The site offers templates that support local development of public-facing social media, responses to media questions and news releases. Available in both PDF and word document formats, the word format can be customized and adapted at the local level to fit the smoke conditions. Templates have been pre-translated and are available in up to eleven languages. Public-facing tools include Frequently Asked Questions about smoke and public health and what to do to protect yourself and family. Additional useful

information is available at <http://www.healthoregon.org/wildfires>, OHA's public-facing online information page.

Is there a difference in smoke from controlled forest burning compared to wildfires?

- It depends on where the wildfire burns. Controlled burns typically burn just plant material – brush, grass and downed limbs and logs. A wildfire burning through a forest is similar. However, wildfires that burn structures may also have potentially hazardous materials from those structures mixed in the smoke and resulting ash. Substances may include asbestos, which can be harmful if inhaled.
- Even when only woody material is burned, high enough concentrations of smoke from either a wildfire or prescribed burn can be harmful to human health. A key difference is that prescribed burns are planned for times when weather conditions should disperse and carry smoke away from communities designated as smoke sensitive. However, smoke from prescribed burns may occasionally enter a =protected SSRA. Usually these episodes are of limited duration, perhaps only a few hours, and often during the evening.
- Wildfires typically produce much higher volumes of smoke than prescribed burns, and they may occur when weather conditions drive smoke right into communities, trapping it at ground level. Wildfires can burn and smolder for weeks or even months, keeping smoke over communities at unhealthy levels.

C. RECOMMENDATIONS TO REDUCE EXPOSURE TO SMOKE

How can people reduce their exposure to smoke?

- **Reduce time spent outdoors.** This can usually provide some protection, especially in a tightly closed, air-conditioned house. Set your air conditioner to recycle or recirculate when at home or in your car to limit your exposure.
- **Reduce time you engage in vigorous outdoor activity.** Vigorous activity increases the amount of air you breathe in, so wait until after the smoke event to resume such activities outside.
- **Use air cleaning devices.** Use high-efficiency particulate air (HEPA) cleaning filters, non-ozone producing electrostatic precipitator (ESP) filters, or a DIY filter made with a box fan and furnace filter, if available.
- **Avoid activities that increase indoor pollution.** Burning candles, wood stoves, fireplaces, and cooking food at high temperatures or over flames can increase indoor pollution. If you need to cook during a smoke event, use a range hood fan if one is available. Vacuuming stirs up particles already inside your home, contributing to indoor pollution. Wait to vacuum, if possible. Smoking also puts pollution into the air.
- **Stay hydrated. Drink plenty of water.**
- **If you have heart or lung disease such as asthma,** follow your healthcare provider's advice about prevention and treatment of symptoms.
- **If you are high risk or someone in your home has COVID-19, create a room that is a cleaner air space.**
 - Close the windows and doors to help keep the smoke out.
 - Stay cool by running fans, window air conditioners set to recirculate, or central air conditioning.
 - Filter air using a central air system with a MERV-13 filter, or better, if you have central air in your home. If not, use a portable air cleaner that is the right size for the room. A DIY filter is also an option if used with caution to prevent safety concerns.
 - Spend as much time as possible in the cleaner air space.
 - If you have healthy members of the household and others with COVID-19, consider having separate "sick" and "healthy" cleaner air spaces. This can be done by having one

room set up as a cleaner air space for healthy household members, and a second room set up as a cleaner air space for ill household members.

People in homes that are too warm to stay inside with the windows closed or who are at-risk of smoke-related health effects should seek shelter elsewhere. Consider visiting family members, neighbors or public buildings that have air conditioning and air filtration. OHA strongly recommends that people continue to wear a mask or face covering when indoors with others outside their household or outdoors when they are with others outside of their household and are not able to maintain six feet of distance. If you or a member of your household have COVID-19, or have been exposed to someone who does, do not expose others by staying with them. Contact your local public health agency for assistance in safely coping with the smoke if you are quarantined or isolated due to COVID-19.

What are responses to smoke that offer little or no protection?

- Wet towels, bandanas, cloth face coverings and common surgical masks covering the face may stop large particles but do little to prevent fine, small ones that can get into the lungs.
- Humidifiers or dehumidifiers are not air cleaners and will not reduce the amount of particles in the air during a smoke event.
- Boiling water with, or without, essential oils or herbs.

When should local officials issue warnings or cancel activities?

School and local officials should consult the Oregon Health Authority's *Public Health Guidance for School Outdoor Activities during Wildfire Events* when deciding to close or curtail local activities during smoke events. The document is available in eight languages to help school officials communicate with parents and staff.

Coaches and other athletics officials should consult the Oregon School Athletics Association's Air Quality Guidelines at <http://www.osaa.org/health-safety/air-quality>. These were developed in consultation with the Public Health Division.

D. HOW TO FIND OUT ABOUT CURRENT AND UPCOMING PRESCRIBED BURNS

Is there any way to know ahead of time about planned forest burns?

- Yes. You can find out about upcoming controlled burns planned in your area at this Oregon Department of Forestry web page http://www.odf.state.or.us/Divisions/protection/fire_protection/Daily/rptAvailableUnitsWeekly.pdf
- The web page will include planned burns by the date they were registered, the county where burns are planned, the type of burn that is planned, the name of the landowner and the size of the burn as represented by the number of acres and estimated tons of plant matter to be burned/treated .
- For burns planned that same day, follow the link below to an Oregon Department of Forestry web page http://www.odf.state.or.us/Divisions/protection/fire_protection/Daily/rptDailyPlans7A.pdf
- The link below leads to an Oregon Department of Forestry web page map showing the location of all planned controlled burns for today. (Please note that not all "planned" burns are actually conducted.) <https://geo.maps.arcgis.com/apps/webappviewer/index.html?id=a7e321dc8fc444b7a33fbc67bc673a3b>

E. WHERE TO GET UP-TO-DATE INFORMATION ABOUT ANTICIPATED SMOKE IMPACTS IN SPECIFIC SMOKE SENSITIVE RECEPTOR AREAS (SSRAs)s

- Check the Air Quality Index (AQI) for current air quality in your area. The AQI is used to report information about the most common air pollutants, including particulate matter (PM2.5 or PM10) and ozone. For more information, visit www.airnow.gov
- Download the Oregon Air app for your smartphone. The app monitors air quality using data acquired from monitoring stations operated by Oregon Department of Environmental Quality and Lane Regional Air Protection Agency. New readings are available about 15 to 20 minutes past every hour.
- Check the local air quality agency's air quality forecast on its website.
- Check local news outlets and their websites for reports of current or anticipated smoke impacts in the area.
- If a community chooses to develop a smoke response plan, it may create additional processes for notifying the public, or those caring for vulnerable populations, about anticipated smoke impacts in that community.