



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

October 9, 2020

## Background

With relatively new smoke rules in effect and the COVID-19 pandemic continuing, the 2020 fall prescribed burning season may see more challenges to burning than in past years. This document anticipates the need to inform Oregonians of the upcoming season, the need for prescribed burning, and what resources people can turn to, to protect themselves from smoke in a time of COVID - 19. It also fulfills the requirements placed on ODF by ORS 629-048-0180 to develop and distribute a communication framework through local ODF and federal district offices to their respective local public health authorities.

## Messaging

As outlined by the revised rules approved by the Oregon Board of Forestry and accepted by the Environmental Quality Commission in the spring of 2019, the following information will be communicated about Oregon's smoke rules prior to 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?**

The simple answer is that controlled burns help maintain forest health and reduce the risk of high-intensity, catastrophic wildfires and the large volume of smoke associated with such wildfires. 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 FIRE**

### **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 respiratory disease
- persons with cardiovascular disease
- persons 65 years of age or older
- pregnant women
- smokers, especially those who have smoked for several years
- COVID-19 patients

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 protocols being adjusted to address COVID-19 mitigation?**

Protocols that determine the daily availability and limitations of forestry burning are being adjusted to incorporate COVID-19 measures, including:

1. For those considering a planned burn in any county meeting COVID-19 Baseline or Phase 1 reopening criteria, or on OHA's "Watch List" in any phase, we recommend using legacy instruction rules (rules implemented prior to March 1, 2019) intended to prevent any prescribed burning smoke (no smoke incidents) from entering a Smoke Sensitive Receptor Area (SSRA) until the downwind county meets Phase 2 or 3 reopening criteria and is taken off the "Watch List."\*
2. For counties meeting Phase 2 and Phase 3 reopening criteria, with no "Watch List", we recommend resuming current prescribed burn practices.

\*OHA will advise ODF regarding any special circumstances that may affect prescribed burning.

### **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 ensure that there is 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 for how 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 that can be adapted for use in the prescribed burning context. The entire toolkit can be found at [www.healthoregon.org/cerc](http://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 is fully customizable and may be adapted at the local level to fit the smoke conditions. Templates have been pre-translated and are available in up to six languages. Public facing tools include Frequently Asked Questions about smoke and public health and what to do to protect yourself and family. The documents are in English and five other languages. 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. On occasion conditions change and smoke enters one of these protected SSRAs. Usually those intrusions 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 high-efficiency (HEPA) air-cleaning filters, if available.**
- **Avoid activities that increase indoor pollution.** Burning candles, fireplaces, or gas stoves can increase indoor pollution. Vacuuming stirs up particles already inside your home, contributing to indoor pollution. Smoking also puts pollution into the air.
- **Stay hydrated. Drink plenty of water.**
- **If you have heart or lung disease or respiratory illnesses such as asthma,** follow your health care provider's advice about prevention and treatment of symptoms.
- **If you are high risk or have COVID-19 in your household, create a Clean Room.** Close the windows and doors to help keep the smoke out. Stay cool by running fans, window air conditions, or central air conditioning and filter the air in the room with a portable air cleaner that is the right size for the room. Spend as much time as possible in the Clean Room. If you have healthy members of the household and members with COVID-19, you may need to create a "sick" and "healthy" clean room.

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. 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 or bandanas covering the face may stop large particles but not fine, small ones that get breathed 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.

### **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 six different 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. Anyone can find out about upcoming controlled burns planned in their area at this Oregon Department of Forestry web page [http://www.odf.state.or.us/Divisions/protection/fire\\_protection/Daily/rptAvailableUnitsWeekly.pdf](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 involved.
- 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](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 current controlled burns <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](http://www.airnow.gov)
- Download the Oregon Air app for your smartphone, which 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.