FIRE AMARE FIRE PREPARED

Are you ready for the wildfire season? Last summer's 2020 wildfire events impacted most Oregonians and we learned that EVERYONE living in Oregon should be prepared for a wildfire emergency. Every community is different though and it can be difficult to navigate all of the resources.

Oregon State University's Forestry & Natural Resources Extension along with state and local agencies and community partners, want to help Oregonians prepare for the reality of wildfire through greater awareness and action. We have created a resources packet that will help get you **Fire Aware. Fire Prepared.** Topics include:

- It takes a village
- From the home to the landscape
- Building community for wildfire resilience
- Be Ready, Be Set, Go!
- A land of fire
- When fire hits
- After the fire

These resources are also available online. A great place to start, if you have web access, is our free online **Fire Aware. Fire Prepared.** webinar series. Visit the OSU Extension Fire Program Online Webinar Guide *at* <u>https://extension.oregonstate.edu/fire-program/online-webinar-guide</u>

In addition to the webinar series, we have many other helpful publications covering fire topics available to you. *Visit* <u>https://catalog.extension.oregonstate.edu/topic/forestry-and-wood-processing/wildfire</u> to view/download.



It takes a village

Description

Wildfire risk is not just an issue for land management agencies to tackle; it's an issue for all of us. This topic focuses on how you and your community can be the most prepared for wildfire and introduces fire risk and community preparedness.

Is fire the problem?

Fire is not the problem. Fire is a natural part of our landscapes. The problem is a web of changes including climate, fuels, and human population. Changes include hotter and drier summers, a build-up of fuels on our landscapes, and increased densities of homes with people living in areas called the wildland urban interface and more human caused ignitions.

Fire risk

Fire is not a risk, it is a hazard. A hazard is something that can cause harm, for example: a ladder, a vehicle, a chainsaw, or fire. A risk is the chance (probability) that any hazard (like fire) will harm a value (your home, trees, etc.) and the degree of harm it could cause (high, moderate, or low). If you have a gutter full of leaves and other debris, for example, the risk (or the probability) of harm to your home increases compared to if your gutters were clean of debris.

Community preparedness

Communities can come together to actively reduce their risk. There are many tools and strategies for communities adapting to wildland fire. The more actions a community takes, the more ready it will become. Here are some ways to begin:

- Start a committee
- Identify assets and goals with Asset Mapping (see resources below)
- Make a preparedness plan
- Share information with your community

CALL TO ACTION

Just starting out? Start preparing now by reviewing the resources provided below, including the recorded webinar on "It takes a village."

If you are further along and have already taken some action in your community to be fire prepared – Consider starting a Firewise Community. Get your community to watch the NFPA Community Wildfire Risk Assessment Tutorial (in resources below).

Resources

Recorded webinar, It takes a village, Wildfire Wednesdays: It takes a village!

Developing community connections with Asset Mapping, https://static1.squarespace.com/static/5a54f5a7f09ca43eb4829c08/t/5b56647c2b6a282123af552f/153 2388478958/ABCD-0-Overview.pdf, https://fireadaptednetwork.org/resource/assetmapping/

Fire Adapted Communities: Understanding Your Role, https://vimeo.com/236980667

Six Great Wildfire Adaptation Resources in Spanish, <u>https://fireadaptednetwork.org/six-great-wildfire-adaptation-resources-in-spanish/</u>

Firewise USA, https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA

NFPA Community Wildfire Risk Assessment Tutorial, <u>https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA/Online-learning-opportunities/Community-Wildfire-Risk-Assessment-Tutorial</u>



From the home to the landscape

Description

As a member of the community, you have the power to alter the outcome of wildfire. Your actions around your home and the surrounding landscapes can reduce the chance your home will burn. This topic reviews practical steps you and your neighbors can do on your own properties before fire season.

Be ember aware

How do most homes burn? By continued exposure to embers. Learn how to prepare your home and be ember aware. Put home hardening principles into practice and increase the chances that your home will withstand wind-blown embers from advancing wildfires.

Home Ignition Zones (HIZ)

There are three zones to focus your efforts:

- Immediate zone, from 0 to 5 feet, create an ember resistant envelope around your home
- Intermediate zone, from 5 to 30 feet, keep this area lean, clean, and green all fire season long
- Extended zone, from 30 to 100 feet or more, thin, prune, and separate the vegetation.

Remember that firefighter safety is the number one priority!

Fire resistant plants

Your landscape can be beautiful and fire-safe. Review the plant materials in the resource list before planting to find out which fire-resistant plants are best for your home landscaping.

CALL TO ACTION

Just starting out? Do one action from the checklist in the resources provided below, "Winter and Spring checklist."

If you are further along and have already taken some action to be fire prepared – Review the checklist and have a maintenance plan.

Resources

Recorded webinar, From the home to the landscape, <u>Wildfire Wednesdays: From the home to the</u> <u>landscape</u>

University of Nevada Reno Wildfire Home Retrofit Guide, <u>http://www.readyforwildfire.org/wp-content/uploads/Wildfire_Home_Retrfit_Guide-1.26.21.pdf</u>

Winter and Spring checklist (English), https://extension.oregonstate.edu/sites/default/files/documents/8341/checklisteng.pdf

Winter and Spring checklist (Spanish), https://extension.oregonstate.edu/sites/default/files/documents/8341/checklistespv2.pdf

Firewise – How to prepare your home for wildfire, <u>https://www.nfpa.org/-/media/Files/Firewise/Fact-sheets/FirewiseHowToPrepareYourHomeForWildfires.pdf</u>

Firewise – Como preparar su casa para incendios forestales, <u>https://www.nfpa.org/-</u> /media/Files/Firewise/Fact-sheets/FirewiseHowToPrepareYourHomeForWildfiresSpanish.pdf</u>

OSU Extension Fire Program *Before Wildfire Strikes* Resources Page, <u>https://extension.oregonstate.edu/forests/fire/wildfire-strikes</u>

OSU Extension Fire Resistant Plants for Home Landscaping, https://catalog.extension.oregonstate.edu/pnw590



Building community for wildfire resilience

Description

Fire doesn't stop at property lines! This topic explores how different communities have found different ways to prepare for wildfire.

Firewise Communities

Firewise Communities can be a great way to bring your neighborhood together to start talking about fire preparedness. Firewise Communities work on evacuation and community access, defensible space and collaborative fuels reduction efforts.

Encouraging your neighbors to take advantage of 'cost share' opportunities

Cost share opportunities provide forested landowners with opportunities to reduce fuel hazard in their forests at a minimal cost. Forest treatments are especially impactful when done continuously across a landscape. Consider encouraging your neighbors to sign up when cost share programs come to your area.

Grassroots collaboration and planning

Some communities recognize unique fire hazards in their landscape and come together specifically to address those concerns. A community with limited ingress and egress might pool funds or apply for grant funding to build a new road. Another community may collaboratively manage a community forest. There is no limit to how communities can come together from a grassroots angle.

Multi-organizational collaboration

Local organizations often already have deep roots in the community and an understanding of the challenges facing the community. They may also have the best tools to get the job done. Gorse, for example, is a highly flammable plant that poses a major fire hazard threat. The Gorse Action Group is a collaboration of several local, county, state and federal agencies and organizations that focuses on the removal of these types of invasive species, particularly to remove the fire risk.

Local government driven community engagement

Some communities take fire preparedness as a county-wide endeavor. Project Wildfire, for example, was created by Deschutes County and partnerships on the ground. Project Wildfire has a major role in educating the community on fire preparedness, reducing hazardous fuels, and preparing a Community Wildfire Preparedness Plan.

CALL TO ACTION

Just starting out? Brainstorm with neighbors' ideal ways to come together on wildfire preparedness, identify local resources such as county emergency managers, Firewise community coordinators, and others.

If you are further along and have already taken some action to be fire prepared – Contact local resources to take next steps in one or more of the methods of community engagement described above.

Resources

Recorded webinar, *Building community for wildfire resilience*, <u>Wildfire Wednesdays: Building Community</u> <u>for Wildfire Resilience</u>

How can landscapes with mixed ownerships be managed for fire effectively? https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em9196.pdf

What is Firewise USA? www.oregon.gov/asp/Docs/Firewise-the%20program.pdf

Gorse Action Group, <u>www.gorseactiongroup.org</u>

Project Wildfire, https://www.projectwildfire.org/

Community Wildfire Protection Plans, <u>www.oregon.gov.ODF/Fire/Pages/CWPP.aspx</u>

Wallowa Resources, www.wallowaresources.org



BE Ready, BE Set, GO!

Description

Wildfire evacuations are becoming a reality that individuals and communities throughout Oregon are faced with each fire season. This topic highlights what to consider when creating a wildfire action plan, a 72-hour bag, where to get updates, and information on wildfire evacuation.

Create a wildfire action plan

Well before fire season even begins, develop a wildfire action plan! This plan should include contingencies for family members at school and work by designating a meet-up location. Take into consideration family members with special needs, such as children and the elderly who may need extra time, as well as for any pets or livestock. Have multiple evacuation routes planned and note that pets and livestock may not be able to evacuate to the same location.

Prepare your 72-hour bag

The 72-hour bag should contain everything you and each member of your family will need to survive over the next three days. This should include things like food, water, clothes, hygiene products, prescription medications, a first aid kit, batteries and phone chargers.

Know where to find more information

When fire hits, it can be chaotic. For information during a wildfire event: monitor your phone for emergency alert notifications; check county website homepages; or follow trusted local media sources.

Be aware of evacuation levels

There are three levels of evacuation in Oregon signifying how prepared a resident should be to evacuate. Level 1, or **BE Ready**, indicates that the potential for evacuation exists.

Level 2, or **BE Set**, indicates that there is a significant danger to your area and you should voluntarily evacuate particularly if you have family members with special needs who will take more time to evacuate. This may be the only notice you receive.

Level 3, or **GO!**, is the last notice you will receive. Danger is imminent and you should leave the area immediately.

CALL TO ACTION

Just starting out? Build your 72-hour bag and make a print out of Evacuation levels. Know where to find the latest information on wildfires in your area. Identify evacuation routes for you and your family.

If you are further along and have already taken some action to be fire prepared – Develop a comprehensive evacuation plan including information on contingencies for children and elderly members of your family, pets, and livestock. Practice that plan!

Resources

Recorded webinar, Be ready, Be set, GO!, Wildfire Wednesdays: Be Ready, Be Set, Go!

Office of Emergency Management Preparedness Publications, https://www.oregon.gov/OEM/hazardsprep/Pages/Preparedness-Publications.aspx

OSU Extension, Before Wildfire Strikes!, https://catalog.extension.oregonstate.edu/em9131

Oregon Evacuation Levels (English)

<u>https://www.oregon.gov/osp/Docs/OrStEvacLevelsFinalJune2014.pdf</u> and (Spanish), <u>https://www.oregon.gov/osp/Docs/OrStEvacLevelsFinalJune2014_sp.pdf</u>

Ready for Wildfire (includes 6 P's for what to take with you during an evacuation), https://www.readyforwildfire.org/prepare-for-wildfire/get-set/wildfire-action-plan/

YouTube video on practicing your evacuation plan https://www.youtube.com/watch?v=TLtrntXifkY



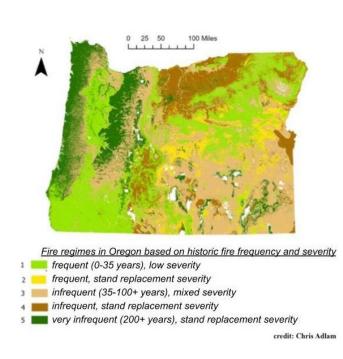
Land of fire

Description

Oregon is a land of fire. From coastal prairies to ancient conifer forests and Mediterranean oak woodlands to the sagebrush steppe, Oregon has long been shaped by fire. Animals and plants have found ways to adapt and many even benefit from fire, sometimes in surprising ways. This topic covers the ecology and history of fire in Oregon, and what we can expect moving into the future.

Fire ecology and basic fire principles

Fires burn in specific patterns based on their average size, frequency, severity, and seasonality. These patterns form "fire regimes" that are influenced by the vegetation type, climate, and ignitions (lighting or humancaused). When fires burn often, there is usually not much vegetation to fuel the next fire. As a result, these fires will burn at low-severity, meaning that their impact on the ecosystem, usually measured in terms of the proportion of trees killed, is modest. On the other hand, highseverity burns occur when there is sufficient fuel and the weather conditions (hot, dry, windy) enable fire to spread through the



forest canopy. Fires that burn through the canopy are called "crown fires", in contrast to low-to-theground "surface fires". Aside from fuel and climate, another factor that drives fire behavior is topography: fire spreads faster and burns hotter when going uphill, and drier, south-facing slopes tend to be hotter, contributing to fire intensity.

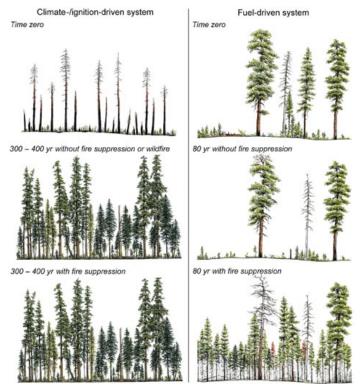
Fire history

There are two main categories of fire regimes in Oregon. In moist forests, many decades or even centuries go by between fires, but fire eventually burns under very dry conditions, killing most of the trees. Infrequent, high-severity fires are also typical of chaparral in southwest Oregon and sagebrush steppe east of the Cascades. In these ecosystems, fire is limited by a climate that is usually too cool or moist, or by a lack of ignition sources. On the other hand, in dry forests, oak woodlands and grasslands, surface fires used to burn every few years, limiting the severity and spread of future fires. Common in

southwest Oregon, the Willamette Valley and east of the Cascades, these ecosystems are fuel-limited, meaning that the lack of fuel controls fire activity. To address fire risk, different strategies are needed depending on the natural fire regime.

Fire effects on ecosystems

Many animals and plants are adapted to fire, and sometimes depend on the effects of fire. Most broadleaf trees, like maples and madrones, recover by resprouting from their roots, while oaks can also resprout from buds under the bark of the trunk. Some shrubs like manzanita and ceanothus have seeds that germinate after a fire, and many wildflowers, as well as pines, need bare soil to germinate. Birds and insects use dead trees and shrubby areas after a fire for forage and habitat. Even deer and elk enjoy fresh growth after a fire. Fire also affects water, soil, and air, in ways that may be ecologically beneficial or not, depending on the pattern and intensity of the burn.



Fire exclusion and Indigenous use

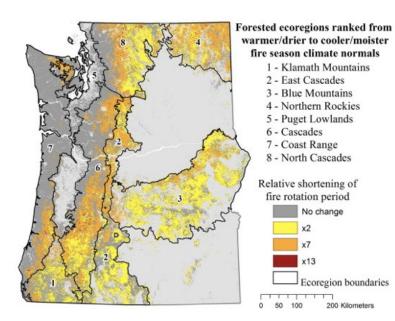
Image credit: Halofsky et al. 2018. https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/ecs2.2140

Fire use by Indigenous peoples goes back

millennia. Tribal fire practitioners use fire to improve the health of important plants used for food, medicine, or basketry. However, Indigenous fire use was criminalized when fire suppression policies were enforced in the late 19th and early 20th century, and lightning fires were also gradually eliminated in regions where they were once common. As a result, dry forests in particular have become much denser. Fires are now more likely to burn at high-severity, and are harder to suppress once they start. Moist forests are less impacted by fire exclusion, except in the loss of specific features like meadows, open ridgelines, and other features once maintained through Indigenous burning and lighting ignitions.

What can we expect in the future?

Dry forests have become denser and the amount of fuel has increased as a consequence of removing frequent fires from these ecosystems. Active management, including thinning of small trees and prescribed burning, can help reestablish a forest structure that is more resilient to fire in these forests. However, climate change is drying out the accumulated fuel, making it even more difficult to contain fires and increasing their severity. Meanwhile, the likelihood of large fires is increasing in forests where fire activity was previously limited by climate. In particular, forests in the interior and southern



portions of the Coast Range, the western Cascades, and higher elevations elsewhere in the state are likely to see the greatest change in fire activity due to climate change



(orange areas in the map above show areas with the greatest change in probability of large fires by the end of this century).

CALL TO ACTION

Just starting out? Go on a nature hike and look for the characteristics of wildfire or a lack of wildfire on the landscape. Consider the landscape around your community in wildland areas. When do you think fire has last been on the land? How can you tell? How do you think the species around you would respond to fire?

If you are further along and have already taken some action in your community to be fire prepared – Learn more about the relationships between Indigenous peoples and Tribal communities in your area and talk with a friend or neighbor about the interactions between people and nature through fire.

Resources

Recorded webinar, A land of fire, Wildfire Wednesdays: A land of fire

Oregon Wildfire Risk Explorer, https://oregonexplorer.info/topics/wildfire-risk?ptopic=62

Myth Busting About Wildlife and Fire: Are Animals Getting Burned? <u>https://www.fws.gov/northeast/refuges/fire/pdf/Gleason%20Gillette%20story%20on%20wildlife%20an</u> <u>d%20fire.pdf</u>

Living with Fire - How trees, plants, and critters have adapted to live with wildfire, <u>http://deschutescollaborativeforest.org/forest-restoration/living-with-fire-how-trees-plants-and-</u> <u>critters-have-adapted-to-live-with-wildfire/</u>

Why many Northwest animals and plants need wildfire, <u>https://www.opb.org/news/article/northwest-plants-animals-wildfire-help/</u>

NW Fire Science Consortium Publications Library, http://www.nwfirescience.org/library/



When fire hits

Description

This topic describes how fire operations and levels of response are assembled, what you can expect if you are in a potentially affected area, as well as some ideas for how you can make firefighters' jobs easier and safer if they need to protect your home.

Responding to a fire

The Oregon Fire Service Mobilization Plan gives the authority to respond to a fire to the Oregon Department of Forestry or the Office of the State Fire Marshal for private lands, or the Bureau of Land Management or United States Forests Service on public lands. The Incident Command System establishes the structure for responding to any fire, including separate sections responsible for operations, planning, logistics, and finance. This means firefighters and incident management teams can come from around the country and quickly be able to fall into place.

How to stay informed when there is a fire

Local news outlets will be broadcasting the latest press releases from fire managers. Local fire agency offices (USFS, ODF, etc.) also have social media accounts and websites that will have information. Unfortunately, there can be a lot of misinformation about fires on social media. Be aware of where the information is coming from, and whether it is first hand information or just a rumor! Some reliable sources can be found in the resources section below.

How to help firefighters

Firefighters have three priorities: protecting life, property, and the environment. However, they often have to make hard decisions during fire incidents. You can help them by preparing your home, including: creating defensible space within the home ignition zone, getting ready with an evacuation plan, and signing up for a local emergency alert system. These are some tips from a senior firefighter:

- 1. Make a plan, and practice it
- 2. Prepare your home <u>before</u> the fire, including making a go-bag
- 3. Kindness matters! Help those who need help preparing
- 4. Be aware of evacuation orders
- 5. Turn vehicle lights on even in the day and move over for emergency vehicles

CALL TO ACTION

Just starting out? Sign up for a local emergency alert system. Know where to get trusted, local fire information. Have an evacuation plan.

If you are further along and have already taken some action to be fire prepared – Create access for firefighters by making sure your driveway has enough clearance for emergency vehicles.

Resources

Recorded webinar, When wildfire hits, Wildfire Wednesdays: When fire hits

What is? The Incident Command System, http://nwfirescience.org/sites/default/files/flipbooks/ic_flip/mobile/index.html#p=1

Glossary of wildfire and firefighting terms, <u>https://www.nwcg.gov/glossary/a-z</u>

Information about large fires, https://inciweb.nwcg.gov/

Information on Oregon fires, smoke, and Red Flag Warnings, https://data.statesmanjournal.com/fires/

FEMA mobile app and text messages for emergency alerts, <u>https://www.fema.gov/about/news-</u> multimedia/mobile-app-text-messages

Ready.gov, Wildfires, https://www.ready.gov/wildfires#during

CDC's, Stay safe during a wildfire, https://www.cdc.gov/disasters/wildfires/duringfire.html

What to do if you are unable to evacuate, <u>https://www.mynevadacounty.com/2764/Learn-what-to-do-if-Trapped</u>



After the fire

Description

When a fire threatens a community, it can be an emotional, scary, and traumatic experience, especially if you had to evacuate. This topic includes the factors authorities are using to determine when it is safe to return, what to know and expect upon returning, assessing your home and property for damage, important calls to make, and what resources and assistance are available if you have been affected by a fire.

How to know if it is safe to go back

Local authorities will not allow the public back into a Level 3: GO! Evacuation area until they have determined it is safe to do so. They will consider the level of current wildfire activity in the vicinity, any present threats to human health such as chemical or electrical hazards resulting from the fire, and other safety considerations. It could be days or even weeks before residents are allowed to return. Therefore, it is a good idea to plan ahead where to go and what to bring in order to evacuate for an extended period of time.

What do I do when I get home after a wildfire

Perform an assessment of the property even if there is no apparent damage. If your home is still standing, check the property for embers, hot spots, smoke, and any structural damage. Also check your property for any damage that may have resulted from fire suppression activities, such as building a fire line, moving heavy equipment, or damage from water or fire retardant.

Before entering your home, especially if there is any visible damage, be sure to wear the proper protective equipment (e.g., boots, long sleeves, gloves, etc.). Once inside your home, be sure to check for gas leaks and power failures. If your appliances are functioning, contact your utility company to ensure it is safe to use them. Consider testing your water before drinking it because fire may have impacted your pump infrastructure if you have well water. Take pictures of any damage you find.

Make sure you are covered for property loss

Preparing for a post-wildfire insurance claim starts well before the fire ever comes. Insurance exists for both homeowners and renters. Even if you have insurance, you may not have all the coverage you need in the event of a partial or full loss. Consider that you may need insurance to cover the replacement of parts or all of your home, temporary housing while your home is being rebuilt or repaired, and reimbursement for possessions lost in the fire. Follow up with pre-fire photos of your undamaged home to prove losses. Beware of fraudulent coverage.

In the event of damage or loss resulting from wildfire, contact your insurance carrier, lenders, banks, and any other financial services right away to let them know of the situation.

Federal and state resources for wildfire recovery

There may be funding and resources available in your area after a wildfire. These programs can include hazard removal, clean-up, damage assessments, temporary housing, resulting unemployment, and rebuilding and recovery. Review the resource list below to learn about which programs might be available in your area after a wildfire.

CALL TO ACTION

Just starting out? Make an inventory of your possessions and document your property to account for insurance claims and make a list of important numbers to call in the aftermath of a fire.

If you are further along and have already taken some action to be fire prepared – Reach out to friends, family, and neighbors to help prepare them for recovery after a wildfire. Assist with property documentation for family or friends unable to do it themselves.

Resources

Recorded webinar, After the fire, Wildfire Wednesdays: After the fire

OSU Extension, After the fire checklist, https://extension.oregonstate.edu/sites/default/files/documents/8341/after-fire-checklist-fillable-form.pdf

OSU Extension, After the fire story map / Resources, https://osugisci.maps.arcgis.com/apps/MapSeries/index.html?appid=6629651002db435d9df188003d790847

Oregon wildfire response and recovery, https://wildfire.oregon.gov/

Protect your finances from disaster, https://dfr.oregon.gov/financial/protect/Pages/disaster-protection.aspx

