

Wildfire Risks & Recovery in Lane County

More than a million acres burned in Oregon in 2020. The cost of the related wildfire, wind, response and debris removal is estimated at \$1.15 billion. More than 5,000 structures were destroyed, mostly homes, and more than 2,000 displaced individuals required emergency shelter. Nine Oregonians lost their lives. The Holiday Farm Fire in Lane County, which burned more than 170,000 acres, displaced thousands and destroyed 400 residences.

Wildfire has played a critical ecological role in our region. Indigenous peoples annually burned large areas of the Willamette Valley and coastal valleys to help maintain grasslands and savannas. But, with significant changes to ecosystems in our contemporary era, unplanned fires that burn in natural areas like forests, grasslands and prairies can spread quickly and devastate both natural areas and neighboring communities. Impacts can include loss of life (humans and other beings), along with injuries and illness; destruction of habitat; polluted soil, water and air; disruption for community businesses, educational institutions, civic life and varied infrastructure; and lost and damaged homes and other buildings. The emotional, physical and economic effects can be profound—and recovery is a multi-layered, complex process.

Globally, the extreme weather of the last two years has almost silenced climate change deniers. The changes we face and the realization that such changes are expected to steadily intensify mean more people are trying to find new paths to a livable world. Many Oregon leaders are working to mitigate if not prevent negative impacts for people and places, as well as the animals and plants sharing our environment.

At its May 2021 Convention, the League of Women Voters of Oregon (LWVOR) membership voted to adopt by concurrence the position of the League of Women Voters of Washington (LWVWA) on forest management. The national league (LWVUS) in its Natural Resources Management Policy does not specifically address forest management but does mention the interconnectedness of ecosystems and the importance of long-range planning and stewardship with this in mind. (*Appendix 1: LWVOR and LWVUS positions*)

This paper briefly summarizes Lane County plans and recent Oregon legislation and suggests additional resources including tip sheets for personal actions.

Lane County Planning & Perspectives

Lane County works with the Oregon Department of Forestry, U.S. Forest Service, Oregon State University Extension Service and other agencies to update and implement the Lane County Community Wildfire Protection Plan (CWPP). The results from a landowner survey help focus public outreach for wildfire risk reduction and loss prevention. The plan is not a regulatory document and doesn't have authority over incorporated communities within Lane County—but it does outline strategies for coordination and collaboration.

The Lane County CWPP has three primary goals:

1. Provide countywide leadership through partnerships to implement Wildland Urban Interface (WUI) fire mitigation strategies in Lane County.
2. Improve community strategies for reducing the impacts of WUI fires.
3. Promote wildfire risk reduction activities for private and public lands in Lane County.

The CWPP outlines and assigns actions toward achieving goals of the plan. It designates the agency responsible for coordination, and the timeline and priority of each goal.

Action items for the 2020 CWPP update included:

- Strengthen communication and coordination among local fire districts, county, state, and federal agencies.
- Recommend revisions to Lane County land use regulations.
- Identify areas and set priorities for developing local evacuation plans.
- Use maps in the plan's risk assessment to guide cross-boundary collaboration.
- Develop an outreach campaign for risk reduction and landowner assistance.
- Implement landowner assistance for fuel-reduction projects including cost-share incentives.

Communications deficiencies within the county were identified in the 2019 LWVLC study, *Seismic Risk*. The 2021 Oregon Legislature passed HB5042, which supports funding in Lane County for handheld radios for fire departments, mobile towers, and repeaters, in the event that cell towers or electricity go down.

According to Patence Winningham, Lane County Emergency Manager, the significance of the CWPP update is the gift of preplanning. Winningham's team is developing a grant to fund risk mitigation efforts, including radios for vulnerable populations. She sees the importance of communicating information about mitigation of fire risk to residents in the wildland-urban interface and also the importance of helping people recognize the need for mitigation and the changing understanding of this need.

Personally knowing stories of living through the Blue River fire, she became aware that central to each story was the significance of community connection in the way residents were first alerted to the danger. Cell towers burned down, and power was out for radio and TV. There was no time to prepare. Neighbor-to-neighbor communication saved lives. The warnings came from a knock on the door, a call from a neighbor, and from people driving around the community. Winningham cautions every community, "Don't assume that alerts have reached everyone." No matter what new cables and towers are planned, every system has a failure point. It will be the people around you who will truly be most important in a disaster.

Lane County Commissioner Heather Buch also has expressed concern about the need for more effective communication, both during a disaster and in the rebuilding effort. In this case, the lack of funding for communication in Senate Bill 762, adopted by the 2021 Oregon Legislature, was unfortunate for the kind of progress needed in both disaster resiliency and recovery.

The need for better broadband access in rural areas is a recognized problem but one that lacks public funding for a solution. Blue River lost its cell service during the 2020 fire, and a new cell tower has been installed which will enable local "hot-spots" for schools and businesses. However, because of slow internet speeds, hot-spot service is inadequate for either use. Buch applauded the efforts of Matt Sayre and Onward Eugene, who partnered with the McKenzie school district and Elevate Technology group to apply for the federal U.S. Ignite Project Overcome grant, funded by the National Science Foundation.

In the absence of sufficient state and federal funding, Buch described the partnership of ALERTWildfire, a consortium of private funders organized by the University of Oregon, University of Nevada, and the University of California-San Diego. Fire detection cameras are installed on existing towers and monitored by private citizens. California has hundreds of such cameras operating now. A new camera has been installed in Lane County on Dead Mountain in the Oakridge area, which has already been helpful with the Kwis Fire during the summer of 2021. The strategy of ALERTWildfire is "more cameras, more quickly," which means finding fires while they are still small and giving firefighters better decision-making capabilities in responding to fires.

Winningham and Buch agree that their constituencies, though they may have differing opinions on the causes, no longer doubt that the future will mean increasingly more heat, more drought, more wind, and more fire. Only a few years ago, building back after a fire might have meant building back what had been lost. Now almost everyone

understands that if they build back, they must build differently. New homes must be as resilient as possible in the face of certain continued risk of fire. New building codes may require different sites, different materials, different construction designs, different communication systems, different landscaping—a different relationship with the forests around them.

In spite of that recognition, both report that building permits, which have long been a frustrating hurdle for homebuilders, will likely become an increasing hassle as new codes addressing resiliency are introduced. Nevertheless, both feel that most people would be willing to use new mandated practices if they can see that new regulations might have worked for them. Resistance may come if people feel that they have a right to do whatever they want on their own property—without recognizing the impact and danger it might bring to the entire community. Resistance may also increase when affordability is a problem.

Frustrated by long-term plans that await grants or state or county planning, Lane County Commissioner Joe Berney suggests that the most effective path to resiliency will be a community-based effort not dependent on institutional funding and bureaucracy. While agencies do collaborate with one another, he suggests that funding sources can be administrative silos, making agency funding less flexible and precluding local, community-based responses for protection from natural disaster. Environmental changes are coming faster than progress by public agencies, which must be more nimble for effective mitigation, and public officials must rethink what available dollars might allow them to buy.

Berney proposes a specific plan that every community could create for itself: a “net zero” facility. During and after any disaster, it might function as a “shelter in place” sanctuary, evacuation center, refuge from smoke, homeless shelter during the cold, or as a community gathering place. Substantial protection could be achieved with a building retrofitted to function independently on a solar microgrid with no transmission lines, its own water systems, structural upgrades against earthquakes, defensible space, non-ignitable building materials, and stashes of emergency supplies. A gym, church, or a veteran’s center might become options.

Matt McRae, Lane County’s Long Term Disaster Recovery Manager, also shares observations learned from working with residents, businesses and agencies on the Holiday Farm fire recovery—specifically about gaps and needs:

Surge capacity needs. Public agencies typically are staffed for ongoing work, and it can be difficult to scale up after a disaster. While agencies often have the ability to “surge” for emergencies (duration of a day, week or up to three months), there aren’t good models for maintaining capacity for ongoing recovery efforts, say for up to three years. Staff, funding and other resources typically are committed and can be difficult to reassign, especially during an ongoing pandemic or other crises.

Housing planning needs. Impacts and needs differ for renters, owners, ongoing residents, and vacation residents. The Federal Emergency Management Agency (FEMA) regulations can stymie low-income residents; additionally, higher-income property owners generally are better able to access services and get attention. Established systems haven’t been in place to assess needs and wants, such as whether long-term residents who are displaced want to return or even where they might have relocated.

Behavioral health & services planning needs. Trauma from wildfires and other disasters persists and compounds pre-existing conditions. Regular public services may not be fully trauma-informed in delivery. Examples include services that rely on displaced residents traveling back and forth to a central location at some distance and long-term motel residency for families affected by disaster.

Socioeconomic factors. Not everyone experiences wildfire destruction and recovery in the same ways. Are service providers and agencies equipped to meet differing needs, to basically meet people where and how they are?

Planning needs. Recognizing that wildfires may well increase and escalate, and that personal decisions during and post-recovery are strained, what could be done beforehand to prepare? Not only is planning for property cleanup critical, but also for potentially reconsidering how a property might be used in the future, whether the site is appropriate for housing, and if structures should be rebuilt as previously constructed and sited. FEMA, for instance, has a floodplain buyout program. Should there be similar support for those living and working in areas affected by wildfires? What pragmatic discussions can occur before incidents?

More Lessons from Wildfire Recovery

The Holiday Farm Fire has required novel actions to address recovery and the ongoing restoration of the land, according to Lily Leitermann, Senior Conservation Tech, and Dave Downing, Manager, Upper Willamette Soil and Water Conservation District. Prior to this fire, the plans for forest fires dealt with public lands. The Holiday Farm fire affected private property, often small-scale property owners, an entirely different socio-legal-political context than public land or working with large corporate forests and other large landholders. The agencies in the Pure Water Partnership (PWP) have turned what they learned into new plans to prepare better for the next time wildfires hit areas of private property. They think the plans and tools that have emerged in the past few months also may be relevant to the rural/urban interface zone and perhaps even to how property owners and neighborhoods might respond within urban areas.

At one level, the answer to the question “what if the worst happens” in more populated areas is to work hard on a defensible space around your home. The more defensible each property is, the better off the neighborhood, the margin interface around properties, and ultimately the forests and water beyond. Most homeowners, however, will need assistance and many will need access to grants and low-cost programs to help fund needed changes. The best approach is to prepare for wildfires (and other disasters) in the context of neighborhoods, where it may be easier to tap into expertise and funding. The priority should be those areas already listed as critical due to their high risk of wildfires--South Hills and Thurston Hills. But that doesn't mean other areas should skip the discussion between neighbors.

What the PWP partners did in the Holiday Farm Fire might illustrate the complexity of taking action in a private property context. First, they had to find property owners. Then they sought permission from each owner to talk with them and to assess their land. If an owner agreed, they set up an appointment for the actual assessment. The assessment (a variety of indicators—invasive plants, erosion control, how much of the tree cover remained, etc.) is technical. It is also necessary in developing a plan that can be used to tap into funding for the agencies or the property owner. When funds finally arrived, Leitermann's team had to find contractors, arrange to work on the land with the owner, follow progress, and then monitor the property's ecological return to health. Put simply, government agencies after the fire can't just walk on someone's property.

Equity is an issue PWP tried to address. When they responded to the fire, they discovered people who lived in unpermitted housing (illegal structures). These residents were afraid to ask for help. Lower-income and marginalized communities may be less able to access information or lack communications technology. The PWP continues to encourage and assist all those affected to find information and help.

Conservation experts have developed detailed tools to understand what was left after the Holiday Farm Fire, what was planted, and what will return in the immediate aftermath of the fire. As databases fill over time, owners and agencies will have more detailed information to use in future planning that can improve defensibility, reduce fire fuels, improve water quality, and lessen the chance of fires hitting urban fringes. If invasive plants emerged after the fire, workers must correct the situation, because invasives are not necessarily good for soil or water quality and they tend to burn. Long-term monitoring via new tools will give a clear sense of what works and doesn't for the particularities of different locations. It is important to understand this is new policy, and climate/environmental change is a game changer.

Oregon Senate Bill 762 (2021 Legislature)

After the disastrous fires of 2020, the 2021 Oregon Legislature on its final day passed SB762, making policy changes and direct investments to improve prevention, mitigation and response to wildfires. SB762 was supported by a spectrum of stakeholders, including communities most threatened by the risk of a catastrophic wildfire event, as well as firefighters. The bill reflects principles from the Community Wildfire Protection Plans and was developed with significant input from multiple agencies, which will carry out policies and establish administrative rules.

SB762 is an omnibus law that will identify, fund, and set timelines for agencies that will administer multiple strategies:

- Create wildfire prevention policies, including fuel reduction plans as well as community-driven restoration of forests and rangelands, and ignition-resistant materials requirements for new construction within high-risk zones.
- Establish electric utility systems for use before and during wildfire events.
- Provide wildfire smoke protections to vulnerable communities.
- Increase firefighter capacity, including air defense resources.
- Invest in youth and workforce training programs for future firefighters and land managers.
- Update agency business systems to ensure appropriate cost controls and prudent financial management, oversight and reporting.
- Require stakeholder engagement from public boards and advisory committees in developing and reviewing the wildfire map, defensible space standards, building code safety measures and land use recommendations.
- Appoint a Wildfire Programs Advisory Council composed of stakeholders and members of the public to advise a new State Wildfire Programs Director and to provide recommendations on implementation and community engagement.
- Invest \$200 million for essential workforce and local amenities on the frontlines managing and mitigating wildfires.

Central to implementation of SB762 are new interactive web-based Oregon Wildfire Risk Explorer (OWRE) maps, produced by Oregon State University and the Oregon Department of Forestry (ODF). These are official wildfire maps for Oregon and are the tool for establishing wildfire risk classifications. That classification will help determine for every agency, organization, and property owner their risk level, appropriate prevention and mitigation, applicable building codes, and how to coordinate efforts. The maps cover the entire state, but also provide detail down to individual land parcels—using a system of overlays for features like soil type, terrain, weather conditions, vegetation, homes and infrastructure, even locations where the population may be socially or economically vulnerable to wildfire hazard.

OWRE maps will also identify the Wildland Urban Interfaces (WUI), where forest, homes, and infrastructure are intermixed. When a property in the WUI is also classified as high or extreme fire risk, rules will be enforced for minimum distances (defensible space) between structures and burnable materials. Using characteristics of a property as identified by OWRE maps, the State Fire Marshal by December 2022 shall establish what the defensible space must be for any particular property. The maps are to be completed by June 2022 and will be publicly available electronically through OWRE.

A coalition of 67 entities contributed to the historical and scientific wisdom behind SB762. These entities remain involved in managing wildfire risk: legislators, universities, state agencies, counties, cities, firefighters, environment preservation groups, and many agencies and individuals involved in relief work. They leverage one another's knowledge and abilities, as demonstrated on the Fremont-Winema fire of summer 2021.

As that fire exploded with unexpected ferocity, the ODF called the manager of the neighboring Sycan Marsh Preserve. The Nature Conservancy had already done fuel reduction thinning on the Preserve to minimize potential

fire damage. The Preserve manager contacted the U.S. Forest Service(USFS) to ask that firefighters not use bulldozers on the Preserve but rather work manually on the fireline in consideration of its fragile ecosystem and of the thinning that had been done. The USFS and a local hotshot crew agreed to try and then did the difficult digging manually. The result was that the burn on the Sycan Marsh Preserve was less damaging, more like a prescribed burn than the intense scarring burn on the adjacent Fremont-Winema land.

Controversy between coalition partners does exist, especially regarding salvage logging. Environmental and commercial interests have struggled over salvage logging in Oregon since 1991, when anti-logging protesters barricaded the site of the Warner Creek fire for nearly a year. Ultimately, the site was never logged.

In the Holiday Farm area this spring (2021), some neighbors were angered by log trucks coming out of the burned forests, asking whether more trees were logged than necessary. The USFS, in awarding logging contracts, insisted the operation was necessary to remove trees that presented danger of falling on roadways and that had value as lumber for construction.

Prevention & Impacts for the Wildland/Urban Interface

According to Winningham, much of the costs resulting from larger fires include:

- Incident Management Teams (fire suppression)
- Search and Rescue
- Dispatch
- Lane County Sheriff's Office
- Geographic Information Services
- Oregon State Fire Marshal Red Team
- Local police and fire
- Air quality teams working with Lane County Public Health to produce daily reports and provide air purifiers to affected residents.

Note: The Lane County Community Organization Active in Disaster (COAD) offers smoke respite and cooling centers.

While there are now many sources of information and assistance available for fire safety upgrades to communities, ultimately it is the responsibility of the property/home owner to carry out improvements. That means taking advantage of educational information available, making efforts to access incentives and funding for those improvements, and then doing what is necessary to protect family and property.

Firewise USA, run by the National Fire Protection Association, provides training and experts to prepare communities and homes for wildfires. The OSU Extension Service provides state and county programs that help with wildfire preparedness education and, in certain cases, funding.

The first step for a property owner is to assess fire risk for their property. Forms can lead a person through areas for review and help direct users through upgrades that will make structures more resistant to fires. Some of the fixes are simple and inexpensive, like making sure gutters are always kept clear of debris that can ignite and cause the roof to catch fire. Others are more complex and expensive, for example, re-siding with more fire-resistant material such as stone and stucco. If the power went out, mounting a sprinkler on top of the roof could continue to work by connecting it to a gravity-feed water system with a large water storage tank and could run even when residents need to evacuate.

During the Beachie Creek Fire in Marion County, one house remained unscathed--though just outside the door, the surrounding forest was burned to black sticks and scorched earth. The house had been constructed with almost every technology for fire prevention available: concrete siding, cement porch, metal roof, no eaves, no gutters, no air vents, and all burnable materials removed to a defensible distance. New state and county regulations direct people

who are starting new construction or rebuilding after fire damage to build back with more fire-resistant structures. (*Appendix 2: Oregon Residential Specialty Code R327.4-Wildfire Hazard Mitigation*)

There is a good deal of information available about landscaping with fire resistant plants and trees (especially native ones), keeping landscaping that is close to your home well-watered and trimmed, clearing underbrush from around trees and removing other hazardous fuel sources, trimming up branches on existing trees and even removing trees to open up crown space between trees and keep trees from overhanging the house to achieve a 100-foot radius of defensible space around your home. (*Appendix 3: Property Evaluation Form*)

The local fire department or county government are good sources for requirements for passage of fire trucks and their safe return; for example, tree branches should be trimmed up to at least 10 feet off the ground, and the access road should be 12 feet wide with a place for the truck to turn around (about 150 feet is needed). If fire departments also have the information about your home that indicates it is defensible against wildfire and there is good access for their equipment, they are more likely to attempt to save your home. Having the road well maintained for access also gives a good path for egress. Having two escape routes is even better. (*Appendix 4: Fire Safety Standards for Roads and Driveways*)

Insurance companies, led by California insurers, may be required to provide a consumer with their property's wildfire risk score, which must recognize a consumer's mitigation actions that could improve their rating. Some local insurance companies are contracting with companies that offer wildfire response actions to protect their clients property at no cost.

Another excellent source of information is available on YouTube, from OSU Extension Service, Forestry Natural Resources. Videos address every aspect of wildfire, from risk causes to property mitigation, personal preparedness, and what a person must do afterward if one's house has burned.

Be aware of current information about wildfires in the area and weather conditions that may affect spread. Alert systems can be linked to mobile phones to allow for continuing updates. To register for alerts, go to: www.public.alertsense.com

Lane County also offers a signup for alerts, based on three levels of preparedness called Get Ready, Get Set, Go: <https://lanecounty.org/cms/One.aspx?portalId=3585881&pageId=4961647> or FEMA, (<https://www.fema.gov/emergency-managers/practitioners/integrated-public-alert-warning-system/public/wireless-emergency-alerts>).

Level 1. Get Ready: Residents should be aware of the danger that exists in their area and monitor emergency services websites and local media outlets for information. This is the time for preparation with go bags that include at least extra clothing, prescription medications, toiletries and some food and water. It's time for precautionary movement of persons with special needs, mobile property and, under certain circumstances, pets and livestock. Know where safe places set up by local governments are located.

Level 2. Get Set: Have everything prepared for your departure. Have your vehicle fueled, loaded, and ready to leave. Have all combustibles away from the outside of your house. Close windows and all interior doors.

Level 3. Go: Leave as soon as officials tell you to. If family members are in separate places, have a plan for how to contact each other and where to meet in a safe place. Nothing is worth more than your life and the lives of your family. (*Appendix 5: Wildfire Evacuation*)

Individuals have different priorities depending on whether they live in urban, rural or urban-rural interface lands, but the same principles apply in all situations. Being prepared for wildfires in your particular circumstances, no matter where you live, is the best protection against property damage and loss of life.

Conclusion

The LWV encourages not only our support for these critical efforts but also our attention to complicated new realities so that we know where our support belongs. We must prepare for unprecedented disasters—which, although unprecedented, are not unpredicted.

Discussion Questions

1. How do the costs—social, economic, ecological—of addressing wildfire risks, effects, and recovery differ for those in forested and rural areas versus those in more urbanized settings?
2. How far should regulations go in prescribing defensible space and other measures for private property? What conflicts arise between community safety and personal needs or liberty, and how might we reconcile them?
3. What have you done and what more could you do to make your residence and property safer from fire?
4. Fire historian Stephen Pyne calls ours the Pyrocene Age, “a period of rising global temperatures and wildfires on an unprecedented scale.” What discourages you? What gives you hope in creating more resilient homes, landscapes and communities?
5. Should the State of Oregon or Lane County develop a wildfire buyout program along the lines of FEMA’s floodplain buyout program? What about approaching the federal government to expand its scope for buyout programs to address wildfires?
6. What kind of land use regulations aimed at reducing wildfire risks would be feasible and/or acceptable to most landowners?

Materials prepared by Mary Durfee, Linda Ferdowsian, Paula Grisafi, Nancy Mills, Keli Osborn, Lois Taylor and editors, Merle Bottge and Carol Hildebrand.

Resources

People interviewed

- Joe Berney, Lane County Commissioner, District 2; interview with Lois Taylor, 9/10/21
- Heather Buch, Lane County Commissioner, District 5; interview with Nancy Mills & Lois Taylor, 9/1/21
- Lily Leitermann, Conservation Programs Manager, and Dave Downing, Director, Upper Willamette Soil and Water Conservation District; interview with Mary Durfee, 9/15/21.
- Matt McRae, Long Term Disaster Recovery Manager, Lane County government; interview with Keli Osborn, 8/20/21
- Patence Winningham, Emergency Manager, Lane County government; interview with Nancy Mills & Lois Taylor, 9/2/21

Organizations, articles, websites

- *Firewise USA* <https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA>
- Oregon Sen. Floyd Prozanski, legislative update, July 7, 2021, e-bulletin. <https://content.govdelivery.com/accounts/ORLEG/bulletins/2e67059>
- Oregon wildfire and recovery response resources. <https://wildfire.oregon.gov>
- Fire Facts, Northwest Fire Science Consortium (with “StoryMap”) <https://storymaps.arcgis.com/stories/ec08804eb22c472b9b26467e2a8d145c>
- Upper Willamette Soil & Water Conservation District, <https://uwsxcd.org/what-we-do/wildfire-resources/>

- Op-ed, *Washington Post*, Sept. 22, 2020. Philip Higuera, Elizabeth Dodson, Alexander Metcalf and Solomon Dobrowski, faculty in the W.A. Franke College of Forestry and Conservation at the University of Montana, <https://www.washingtonpost.com/opinions/2020/09/22/there-will-be-more-wildfires-what-should-we-do/>
- Firefighters United for Safety, Ethics & Ecology <https://fusee.org/>
- OPB *First Look Newsletter*, 9/20/21. Search “plan to avoid repeat of 2020”
- *The Nature Conservancy*, Fall 2021. Search [nature.org/oregon](https://www.nature.org/oregon), “Landmark Wildfire Legislation Passes,” “Holding the Fireline,” and “A Comprehensive Approach”
- Oregon Wildfire Risk Explorer (OWRE)
https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfireplanning
- Oregon Legislative Information System (OLIS), search: olis.oregon.gov; SB 762; and legiscan.com/OR/bill/SB
- 1000 Friends of Oregon, [friends.org/news/2021/our-legislative-wildfire-wrap-SB762](https://www.1000friends.org/news/2021/our-legislative-wildfire-wrap-SB762)
- *The Register-Guard*, 2/23/20, p A1, “The Timber Worker’s Truth,” by Adam Duvernay
- *The Register-Guard*, 7/25/21, p A15, “Technology Has A Growing Role in Wildfires in West,” Don Thompson, Associated Press
- *The Register-Guard*, 8/29/21, pp A1+, “Lane County Depends on Technology as well as Neighbors,” Adam Duvernay
- *The Register-Guard*, 8/30/21, pp A1+, “A Long Road Ahead,” by Megan Banta

Appendix 1:

League of Women Voters of Oregon Forestry Position: <https://www.lwvor.org/forestry-position>

Concurrence on Forestry Positions adopted by Washington LWV, 2021 Oregon Convention (May 11, 2021).

League of Women Voters of United States (LWVUS)

Natural Resources: Promote the management of natural resources as interrelated parts of life-supporting ecosystems. (1958, 1986)

Resource Management: Promote resource conservation, stewardship and long-range planning with the responsibility for managing natural resources shared by all levels of government. (1958, 1960, 1975)

Environmental Protection and Pollution Control: Preserve the physical, chemical and biological integrity of the ecosystem, with the maximum protection of public health and the environment. (1958, 1971, 1973, 1975, 1978, 2016)

Appendix 2:

https://www.deschutes.org/sites/default/files/fileattachments/community_development/page/11797/summary_of_oregon_residential_specialty_code_r327_-_print.pdf

Appendix 3:

<https://www.oregon.gov/odf/Fire/Documents/Certification%20High.pdf>
https://www.eugene-or.gov/DocumentCenter/View/42278/wildfire-checklist_IBHS

Appendix 4:

https://p1cdn4static.civiclive.com/UserFiles/Servers/Server_3585797/File/Government/County%20Departments/Public%20Works/Land%20Management%20Division/Land%20Use%20Planning%20Zoning/Land%20Use%20Planning%20&%20Zoning%20Handouts/Fire_Safety_Standards_Roads.pdf

Appendix 5:

<https://www.oregon.gov/osp/programs/sfm/Pages/Wildland-Urban-Interface.aspx?fbclid=IwAR3ymMcZWUjyRT3ucT4xbmgkW-Ckq31z126uduAf5DhL2CuIRReQjGYbLX0#evacuation>

