



# MORNING SESSION 2

## Land Use Systems

### Purpose

In January 2019, Governor Kate Brown tasked to the Council on Wildfire Response to review Oregon's current model for wildfire prevention, preparedness and response, analyzing whether or not the current model is sustainable given our increasing wildfire risks.

**Goal 1: Create Fire-Adapted Communities**

**Strategy 2: Diminish Wildfire Risk through Land Use**

Element	Course of Action	Prioritization
Defensible Space	Significant Correction	HIGHEST
Building Codes	Significant Correction	HIGHEST
Land Use Systems	Significant Correction	VERY HIGH
Property Insurance Incentives	Moderate Correction	VERY HIGH / HIGHEST?

DRAFT

## Element 1: Defensible Space

### - Summary -

- Recommendation #**
- **Fund and implement 2017 revision of Oregon Forestland Urban Interface Protection Act.**
  - **Support adoption of International Code Council Wildland Urban Interface Code through Oregon State Fire Marshal’s Office and local jurisdiction.**
  - **Create a mitigation fund to help underserved populations.**
  - **Support mapping and tracking of defensible space status.**

<b>Legislation</b>	Senate Bill 2222
<b>State Investment: Personnel</b>	ODF and OSFM Staffing Needed
<b>State Investment: Equipment</b>	None
<b>Governance</b>	ODF and OSFM, Local Governments
<b>Reference</b>	Land Use Committee Report
<b>Prioritization</b>	<b>HIGHEST</b>

### Summary

Defensible space around buildings and infrastructure is critical to public safety and health, property and infrastructure protection, business resilience, firefighter safety and effectiveness, and system wide cost and loss avoidance. In 2018’s fire season alone, the Office of State Fire Marshal spent \$15 million during large wildfires preparing homes by creating defensible space, work that could have been done prior to the fire. Oregon does not have a coordinated plan that addresses defensible space among varying jurisdictions, nor a tracking system that monitors defensible space status, but elements of a systematic approach exist and can be formed into a coordinated, multi-jurisdictional program.

The Wildfire Council recommends the State take a most active role in defensible space. The most active role includes recommendations to update and re-adopt the 1997 Oregon Forestland-Urban Interface Fire Protection Act ([Senate Bill 360](#)). Further, a recommendation to adopt the International Code Council Wildland Urban Interface Code (ICC WUI code), led by the State Fire Marshal’s Office, would cover non-forested WUI areas and cities containing or adjacent to WUI zones, allowing local enforcement and seamless integration outside ODF’s jurisdiction. Defensible space requirements for new construction are addressed in the Codes section. To most equitably approach this initiative, a proposed State matching fund for low income residents is recommended for residents who could be disproportionately affected.

## Element 1: Defensible Space

### - Detailed Analysis -

#### Defining the Issue

##### Problem Statement

- Defensible space around homes and infrastructure is critical to public safety and health, property and infrastructure protection, firefighter safety and effectiveness, and system wide cost and loss avoidance.
- Neighbors depend on one another to mutually maintain defensible space. The decisions of a few affect everyone in a wildfire-prone community.
- While other states have mandated defensible space policies, Oregon lacks a consistent definition, standards, enforcement, and mapping of wildfire risk areas where defensible space is needed (see Element 4: Information Resources).
- Primary challenges are gaining public acceptance of the need to accomplish effective defensible space, mandating uniform standards across the state, staffing to educate the public and local jurisdictions, and incentives for low income residents.
- New structures continue to be built in wildfire hazard zones throughout the state without a requirement for defensible space at time of build (see Element 2: Building Codes).
- Human caused fires still constitute the vast majority of fire starts in the state. Defensible space protects homes from wildfires, but also protects wildlands from home fires, buying critical response time before a fire transitions into the wildland from a structure.

##### Current Situation: Defensible Space

- OSFM team deployments during Oregon Conflagration Act wildfires in 2018 spent over half their time and an estimated \$15 million preparing homes with insufficient defensible space. Non-conflagration (small, locally staffed) fires were not accounted for and contribute additionally to this number.
- Oregon does not track defensible space compliance, so fire crews assess this critical factor on every fire, which is costly and time consuming.
- Communities and individual rural homes lacking defensible space are at much higher risk of loss. Without intervention, the State should expect to see increasing losses of property and life as climate change increases community exposure.
- Climate change is predicted to increase fire activity across the state, but more significantly in areas where fires have been rarer in the past, including the Coast Range and Willamette Valley, where awareness of defensible space and preventive action taken is likely lower than already fire-prone areas of the state. <https://www.nap.edu/read/12877/chapter/5#40>
- As numbers of home-based businesses and people working from home grow (Oregon is #2 nationally for people working from home), the risk of economic impact of wildfire increases as home exposure increases. <https://oregoneconomicanalysis.com/2019/01/16/working-from-home/>
- A lack of consistent definition of areas at risk/WUI, makes it difficult to prioritize where the focus needs to be, how large the problem is, and what resources are needed to address it.

## Business-As-Usual Forecast

- Without a coordinated plan to address defensible space, we can expect suppression costs to continue to increase as a result of unprepared homes requiring intervention ahead of fires, when time allows.
- Risks to firefighters and residents will increase as predicted fire size, intensity, and acres burned increases during forecasted warming due to climate change.
- Home and property loss will likely continue to increase without significant preventive intervention that results in significant attainment of defensible space across the state as new construction continues in wildfire risk zones with or without codes requiring defensible space.

## Policy Options Available to State

- The Land Use Subcommittee's most active policy recommendation (preferred option) highlights:
  - Oregon uses the latest data on western wildfire to define enhanced standards for defensible space and requires them on select landscapes.
  - State provides permanent funding for administration and implementation.
  - Identify low/medium/high risk for all private lands, create a statewide minimum standard, but some measure of defensible space required on all landscapes.
  - Define and require maintenance and monitoring.
  - Equitable approach to funds made available that prioritizes support for populations with greater vulnerability, including communities of color, indigenous communities, limited English proficiency community members and low-income citizens.
  - Defensible space review/implementation included within NEW building/site construction permitting process (see Element 2: Codes for details).
- A less active policy recommendation (non-preferred) would entail:
  - Current defensible space statutes and standards exist but there is diversity between communities in local level adoption leading to implementation.
  - There is no State funding or staff to administer defensible space standards.
  - Tracking progress and compliance with defensible space standards is not possible within current system structure.
  - While experts recognize the interrelationship between fire-hardening building codes and defensible space standards, regulatory oversight is separate.
  - Local monitoring and enforcement of existing statutes and standards imposes a financial burden on local authorities.
  - Current enforcement system is complaint-driven, further exacerbating uneven adoption.
  - There is better implementation where there is greater local fire district capacity, leading to equity and consistency issues.
  - As expressed in SB 360, homeowners can be held liable for fire suppression costs due to wildfire, creating disincentive for local adoption of higher standards.
  - Current system does not take an equitable approach, that prioritizes protection and benefits for most vulnerable populations, including communities of color, indigenous communities, limited English proficiency community members and low-income people.
  - Low-income homeowners or renters cannot often afford to meet standards.

## Policy Analysis

## Overview of Policy Under Consideration

- Fund updated defensible space requirements in ODF-protected areas with proactive education and implementation. Fund assistance for disadvantaged populations.
- Pass ICC WUI Code as part of Oregon Fire Code, and State actively assists with local adoption and implementation in WUI areas not protected by ODF.
- Provide support for land use and building codes that require defensible space and hardened construction at the time of development or remodel (detailed proposal in Codes element).

## Cohesive Strategy Effects

- The anticipated effect of increasing the proportion of structures with defensible space would primarily be realized in more effective, safe, and efficient suppression. There would also be an anticipated benefit in avoided costs to local jurisdictions in reduced likelihood of structure loss and associated impacts to citizens and infrastructure, the majority of which are absorbed at the local level.
- Reduced home and infrastructure loss results in lessened economic burdens, emotional stress and health effects, and a quicker recovery time, all elements of a fire adapted community.

## Anticipated Uplift

- Human Safety and Human Health
  - Defensible space has direct positive association with structure survival, leading to decreased chances of citizen and firefighter fatalities.
  - Decreased home loss keeps people in their homes, avoiding costly rebuilding, dislocation, and interruption (particularly for renters).
  - Mental health impacts in wildfire-affected communities are understated and long-lasting, degrading the quality of life. Though difficult to value, avoiding these impacts has a substantial return on investment in health care.
- Critical Infrastructure
  - Defensible space leading to decreased structure loss prevents impacts to water and electric infrastructure at each building and associated system wide impacts.
  - Defensible space principles can be applied to critical infrastructure such as cell towers, substations, and pump stations that provide critical services. Interruptions and associated replacement costs can be avoided.
- Vibrant, Stable Communities
  - Avoiding wildfire impacts in communities is imperative. Studies show a high percent of costs are absorbed at the local level, straining budgets and impacting businesses and economic activity. Reducing structure loss significantly reduces the impact on local jurisdictions in the recovery phase.
- Public Finance (Cost Containment)

- OSFM estimated \$15 million spent on preparing structures ahead of large wildfires in 2018. Having defensible space created prior to fire season alleviates the financial and workload burden on the State during fire response.
- There is a public cost of infrastructure damage such as water system contamination experienced in Paradise and Santa Rosa, or more commonly electric service infrastructure loss. Though felt at the local level, these costs can be extensive and end up as a burden on citizens who are likely being impacted by other wildfire related costs.
- Overall prioritization is HIGHEST, due to predictable positive impacts on human health and safety, communities, and public finance. If implemented at full scale funding, the certainty of outcomes is high. Lowered levels of funding and program rollout directly decrease the benefits and anticipated uplift.

### Anticipated Costs

- 12 FTE for ODF to roll out SB360 state-wide.
- 8 FTE for OSFM to support creation of code best practices, provide guidance to local jurisdictions, enforcement support.
- Undetermined cost for technical assistance for code update.
- Local opposition to mandated standards could be anticipated without state wide financial support.

### Timeline

- Begin program staffing and rollout in FY 2021, continue to ramp up to full capacity by end of FY 2022 until targets are met. Ramp down to maintenance levels by end of FY 2026.
- Time of initial impact: 3-5 years.
- Benefit duration: **2017 ORS 477.059** requires no less than 5-year re-certification on defensible space. Initial investment will make re-recertification more efficient, less frequent, and less costly.
- Overall Timeline rating is VERY HIGH. Meaningful benefits realized if completion of first round of five-year certification period completed by end of FY2026.

### Implementation Certainty

- Overall degree of certainty is HIGH. Expect predictable outcomes with reliable, proven results if funding and organizational ramp-up proceed according to need and timeline.
- Drivers of high certainty
  - Political risk is low given this program has largely been previously rolled out across much of the state. Wildfire has only increased as a pressing issue for the public and support should be increasing for government intervention.
  - Operations risk is low given prior experience with SB 360 and awareness of the importance of defensible space.
  - Dependence on other policies is low.
  - Dependence on other stakeholders is moderate. Cooperation from counties, local fire protection districts and departments, and between state agencies will make this effort successful and efficient.

- Full funding and rollout with support from State legislature and State agencies is paramount if successful achievement of overall defensible space goals and anticipated uplift is to be realized.

### **Magnitude of Impact**

Additionality relative to overall wildfire risk in Oregon is VERY HIGH.

### **Overall Priority**

**HIGHEST**

### **Supporting Resources Required**

- Information resources (mapping) to identify the extent of needed defensible space and zones of high risk across the state, especially areas outside of ODF jurisdiction.
- State staffing (ODF and OSFM) to implement SB360 program and support ICC WUI code adoption.
- Mitigation funding for disadvantaged populations.

### **Key Assumptions**

- Local jurisdictions not within the ODF SB360 coverage will proactively adopt ICC WUI code requirements for defensible space and assist with implementation using a similar approach as laid out in ORS 477.015 (Definitions) to 477.061 (Short title).
- Property owners will comply on a voluntary basis with SB360 and ICC WUI code standards.
- Funding will be allocated to fully carry out the State's role in achieving defensible space.

Goal 1: Create Fire-Adapted Communities

Strategy 2: Diminish Wildfire Risk through Land Use

Element 2. Building Codes

Element 2: Building Codes

- Summary -

- Recommendation #**
- Establish an interagency workgroup and policy decision making committee to identify code gaps and needed updates, and assist local jurisdictions with updates.
  - DLCDC works with Counties and Cities on rulemaking for land use planning related to reducing wildfire risk.
  - As needed, update wildfire-related building and land use codes and establish goals for local adoption with State assistance. State will issue best practices guidance for zoning and code application with process recommendations for local jurisdictions to follow.

<b>Legislation</b>	To be determined by working group
<b>State Investment: Personnel</b>	Staff support for working group, rulemaking, and assistance to counties and cities.
<b>State Investment: Equipment</b>	None
<b>Governance</b>	DLCD, OSFM, Building Codes Division, Counties, Cities
<b>Reference</b>	Land Use Subcommittee Report
<b>Prioritization</b>	<b>HIGHEST</b>

Summary

Codes (both building and land use) are a key component to a cohesive wildfire safety program across Oregon. While construction will take place in wildfire prone areas across the state, structures built in wildfire overlay areas should meet best practices to protect future occupants and first responders while reducing the public cost burden for wildfire response and recovery. Following the zoning recommendations, local jurisdictions who already have, or choose to newly define, their wildfire risk overlay areas (WUI) can choose the level of land use and building code requirements for construction in their wildfire overlay zone, though will be strongly encouraged to adopt all applicable codes. Many local jurisdictions have already adopted requirements for wildfire zone construction, though requirements may be outdated or not adequate for the current and predicted level of wildfire exposure.

## Element 2: Building Codes

### - Detailed Analysis -

#### Defining the Issue

##### Problem Statement

- Oregon, like many states, is experiencing housing expansion into wildfire prone areas. An increasingly uniform application of zoning and codes is desirable to avoid unnecessary exposure and increasing public expenditure for suppression and recovery. Evidence shows that codes are having a positive impact by reducing wildfire loss in California.
- While put forth at the State level, building and land use codes are adopted by local jurisdictions, though the process of zoning and code adoption, how they relate, and what options are available can be confusing and difficult to navigate. This results in patchy adoption, application, and enforcement in areas where WUI fires become State-funded suppression liabilities.

##### Current Situation

- There is a lack of tracking as to which jurisdictions already have wildfire-related codes, and to what degree current codes represent best practices and current science in wildfire mitigation and loss prevention. This extends to a lack of guidance as to where codes should and should not apply in communities.
- The patchwork of inconsistent and sometimes absent role of codes allows development in fire prone areas of the state that does not meet best practices for protecting citizens and first responders, setting the stage for future loss and rising expenditures, both private and public.
- The array of codes and policies is not cohesive, easy to follow, or achievable for local jurisdictions.

##### Recent Trends: Codes

- Development pressure continues to increase in the Oregon WUI. One study indicates that Oregon experienced a 40.7% increase in the number of houses in the WUI from 1990-2010. However, the study did not consider local definitions of wildfire risk, which adds further urgency to mapping Oregon's community wildfire risk.
- Recent update to Oregon Residential Specialty Code (R327) is a new tool for local jurisdictions to adopt wildfire safe building practices. As of October 2019, Medford is the first community to have adopted this new element of the building code.

##### Business-As-Usual Forecast

- Housing shortages are forcing construction to expand further into wildfire hazard areas along with those choosing a rural lifestyle for aesthetics and quality of life.
- Not only are WUI areas subject to wildfire loss, humans are the primary source of fire starts from activities like debris burning, equipment use, accidents, and arson.

## Policy Options Available to State

**Most Active:** Assess wildfire zoning and code tools, update as recommended by committee. Use State agency resources to assist local jurisdictions in wildfire planning, and adoption of wildfire planning measures into their Comprehensive Plans and Zoning Codes. State provides planning resources, best practices, and help assessing where codes should be applied (see Information Resources: Wildfire Risk Mapping). Building codes and defensible space are linked and coordinated. State assists coordination with insurers for incentives. State, in coordination with Cities and Counties, has the option to set adoption goals and timelines, while recognizing limited local capacity and the need for increased education about the positive outcomes of code-based approaches to wildfire safety. Home loss and State-incurred costs for structure protection trend downward over time.

**Less Active:** Make recommendations to local jurisdictions based on existing code resources, no requirements for code adoption and no assistance from State. No modifications to current policies or codes. Expect increasing home loss and State expense for WUI fire protection continues to increase.

## Policy Analysis

### Overview of Policy Under Consideration

- Use state agency resources to assist local jurisdictions in wildfire planning and adoption of wildfire planning measures into their Comprehensive Plans and Zoning Codes.
- Counties and cities work toward updates and/or new adoptions as needed, with State technical assistance.

### Cohesive Strategy Effects

- Ultimately, codes create development that is wildfire resilient in at-risk areas across the state of Oregon, preventing future liability and loss with associated effects on communities, infrastructure, and human health and safety...leading to Fire Adapted Communities. Suppression costs and risks to firefighters decrease over time, making suppression more effective and efficient as community susceptibility decreases. Wildfire losses and ignitions decrease due to codes and defensible space efforts, resulting in less impact on communities, wildlands, habitat, and forests.

### Anticipated Uplift

- Decreased structure loss, increased life safety
  - Declining State investment in OSFM response and protection costs
  - Fewer homes lost to wildfire results in avoided loss to economic activity, public infrastructure.
- Overall Uplift: HIGHEST

## Primary Council Objectives Achieved

- See Defensible Space section above.

## Anticipated Costs

- Direct cost of implementation (5 years initial timeline)
  - State invests in staffing, mapping, outreach
  - Counties/cities assist with existing staffing
- Indirect Costs
  - There is potential for increase in construction costs in wildfire risk areas. The primary study cited below refers to a specific region where typical construction costs may differ from localized examples in Oregon. See <https://headwaterseconomics.org/wildfire/homes-risk/building-costs-codes/>. The potential increase in initial cost needs to be weighed against statistics showing the cost of wildfire losses to citizens, State, and local governments i.e. the [full community cost of wildfire](#).
  - Increased cost for creation and maintenance of defensible space during and after construction.
- Overall Cost: MODERATE

## Timeline

- Land Use Committee recommends a five-year timeline that encompasses the major objectives of mapping, policy and code update, and program initiation and progress at the local level.
- Resulting processes, code updates, and safer construction have decades-long impacts on lowering wildfire risk in the state. Process updates should be evaluated every 5 years.
- Once constructed, structures will fall under the Defensible Space maintenance requirements outlined in the previous section.

## Implementation Certainty

- Overall degree of certainty: VERY HIGH
- Drivers
  - Oregon's land use program and experiences offer unique building blocks for this effort. Modifying and streamlining the State's policies and codes requires smaller investment than creating these resources.
  - The increasing effects and cost of wildfire in Oregon provide a motivating factor for all parties.
  - Local jurisdictions with limited capacity may need direct assistance with staffing and/or funding.

## Magnitude of Impact

VERY HIGH

## Overall Priority

HIGHEST

## Supporting Resources Required

- Information resources (e.g., mapping)
- Guidance from DLCDC, OSFM, BCD to help local jurisdictions navigate code adoption process.
- State agency staffing and coordination for implementation.
- County and City participation in discussion and development of policies and updates.

## Key Assumptions

- Local jurisdictions are provided the resources need to undertake wildfire risk and mitigation planning through code application.
- Stakeholders (contractors, real estate, insurance, and others) are part of discussions about code adoption. Assume the State will convene stakeholders for collaborative development of new policies and processes related to development in wildfire risk zones at state and local levels.
- Homebuyers see homes built to wildfire codes as an essential component to living in fire prone areas of Oregon, much like energy efficiency measures are now commonplace and sought after.

Goal 1: Create Fire-Adapted Communities

Strategy 2: Diminish Wildfire Risk through Land Use

Element 3. Land Use

Element 3: Land Use

- Summary -

Recommendation 3

- Create a wildfire risk map informed by state information that can be used at the property ownership level.
- In coordination with Oregon cities and counties, the Land Conservation and Development Commission (DLCD) undertake rulemaking to adopt minimum standards for local governments to plan for wildfire risk.
- State agencies (DLCD, perhaps Oregon Department of Forestry and Oregon State Fire Marshall) provide technical assistance resources to counties/cities to implement wildfire risk planning, zoning, or development mitigation standards.

Legislation	SB 100; ORS 469.673-683 (as amended)
State Investment:	{Fill in}
Personnel	
State Investment:	{Fill in}
Equipment	
Governance	{Fill in}
Reference	Land Use Committee Report
Prioritization	VERY HIGH

## Element 3: Land Use

### - Detailed Analysis -

#### Defining the Issue

##### Problem Statement

As wildfires increase in frequency and intensity, Oregon communities experience increased vulnerability to the effects of wildfire. Land use planning measures can be employed by cities and counties to (1) utilize information about areas most prone to damage, (2) develop property measures to mitigate the risk in prone areas, and (3) implement those measures for new development. Oregon's land use planning system provides a framework for identifying hazards and reducing risks, however, few communities are currently utilizing land use planning to actively address wildfire hazards. Information resources are needed to effectively use land use planning as a risk management tool. Incorporating wildfire risk information into planning and zoning is an adaptation tool that can reduce the potential for future losses and improve resiliency.

##### Current Situation: Zoning and Urban Growth Boundaries

A hallmark of Oregon's land use planning system is protecting farm and forest areas as working landscapes by limiting development opportunities through zoning measures (commonly referred to as resource zones) and limiting urban sprawl through state policies. Outside of a city, areas zoned for residential or other development-uses are well defined, and generally located in areas with poor farm or forest value. In terms of the risk wildfire poses to structures, an advantage to Oregon's land use approach is development in rural lands is either low in density (on farm and forest lands), or limited to defined areas with predictable development densities (for example, one residence per 5 acres). Urban development is generally limited to the lands within a City's urban growth boundary. A comparison of the effects of Oregon's and Washington's land use planning systems effects on agricultural and timber lands concludes, "In the periods following land use implementation [1984 in Oregon] there is a distinct slowing of the conversion of resource lands especially in Oregon. Following land use implementation the annual rate of wildland forest conversion fell by 66%, range by 23% and intensive agricultural lands by 50%.<sup>1</sup>" Oregon compares well with other states in limiting development on rural lands, where wildland fire is most expected to occur.

Land use planning, including the state standards, is implemented at the local level by city or county government based on adopted standards in state statute, administrative rule, and local code. The foundation of these adopted standards is the Oregon Land Use Planning Goals; Planning Goal 7 addresses natural hazards. The hazard planning framework for addressing and mitigating risks is in place, but few communities are using land use planning to actively address wildfire risks beyond the

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<sup>1</sup> Lettman, G. et al, Land Use Change on Non-Federal Land in Oregon and Washington, 2018 Update

standards set in administrative rule discussed in the next paragraph. This is primarily due to a lack of information needed to make risk and mitigation decisions.

When development is allowed in timber zones, existing state administrative rules (OAR 660-006-0029, 0035 and 0040) provide standards for minimizing the risk associated with wildfire, and providing firefighting resources, by addressing fire protection, access, fuel breaks, fire retardant roofing materials, slope, and spark arrestors on chimneys. There is no requirement for upkeep of these standards, including defensible space.

Currently, there is no standard methodology for communities to determine an area's wildfire risk, and limited opportunity to provide an accurate assessment of number and type of structures currently developed in wildfire prone areas.

### **Recent Trends: Land Use & Zoning**

Statewide Planning Goals 9 and 10 require cities to plan for a 20-year land supply for expected housing and commercial land needs, and this supply is based on a projection created using community data. Predictably, some cities need to grow to accommodate economic and population changes while others do not. Outside the urban growth boundary, rural lands do not take such a supply and demand analysis into account, so rezoning areas from a low density land use to a higher density land use is challenging and rare.

According to the 2018 U.S. Census Bureau estimates, most of the fastest growing cities in Oregon by population are concentrated in the northern Willamette Valley, Central Oregon, and Southern Oregon.

Without a standard methodology for determining wildfire risk at the property ownership scale, there is limited opportunity to provide an accurate assessment of number and type of structures currently developed in wildfire prone areas. Use of the term "Wildland Urban Interface" (WUI) in Oregon is primarily related to a definition from either the U.S. Forest Service or the Oregon Department of Forestry, which do not take into account fuel types other than forests, and has limited usefulness in the context of looking at statewide risk across different landscapes. While information about current development trends in wildfire risk areas is incomplete, there are some data available that help create an understanding of the current situation.

Oregon Wildfire Risk Explorer<sup>2</sup> is "designed to increase wildfire awareness, give a comprehensive view of wildfire risk and local fire history, and educate users about wildfire prevention and mitigation resources." GIS map layers included on the site show wildfire risk and threat. Limitations in the data will limit usefulness for this context. The existing structural data is incomplete, and the WUI areas are based on U.S. Forest Service definitions.

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<sup>2</sup> The Oregon Wildfire Risk Explorer is a partnership among Oregon Department of Forestry, Oregon State University Institute for Natural Resources, OSU Libraries and Press, the US Forest Service, and a wide variety of stakeholders throughout Oregon. The website can be accessed at [www.oregonexplorer.info](http://www.oregonexplorer.info)

The West Wide Wildfire Risk Assessment from Oregon Department of Forestry estimated over 750,000 homes are located in WUI areas in Oregon.<sup>3</sup>



### Business-As-Usual Forecast

- If current policies are left as-is, development will largely continue along the same patterns that currently exist in cities and counties. While Oregon’s land use planning system does limit development in rural lands, most communities are not actively using land use planning as a tool for reducing wildfire risk. Wildfire risk, or potential mitigation, will only be considered in limited development situations (such as development in timber zones) for most communities. Development will largely be sited and built without defense against fire.

### Policy Options Available to State

- More active
  - The Oregon Legislature provides policy direction, standards and “sidebars” for the Land Conservation and Development Commission, in coordination with Oregon counties and cities, to undertake a rulemaking process to require local planning for wildfire risk.
  - The Oregon Legislature provides direction and resources for statewide mapping and data resources to fill essential data gaps necessary for local governments to conduct meaningful wildfire planning.
  - Associated 2020-23 budget request for multiple state agencies to fund rule development technical assistance for
    - Updates to local comprehensive plans and development codes;
    - Community Wildfire Protection Plans (CWPP) and;

<sup>3</sup> Information provided by Teresa Zena Alcock, Fire Data & Geospatial Analyst Salem Set of the ODF Fire Environment Working Group, Oregon Department of Forestry

- Natural Hazard Mitigation Plans (NHMP)  
Legislative direction should consider options including mitigating/limiting growth and development in wildfire risk areas, mitigation for existing development, and additional protections for areas surrounding watersheds/water sources for communities.
- Less active
  - 2021-23 budget request for state agency (ODF and DLCD) staff to fund technical assistance for CWPPs and NHMPs, with associated additional assistance to update local comprehensive plans and local development codes.
  - Local jurisdictions are the final decision maker on the identification of wildfire risk and development of CWPPs and NHMPs. Counties and cities must update local comprehensive plans to be consistent with CWPPs and NHMPs. Ensure resources are available for local governments to use new wildfire data and inform/update Goal 7 plans.
  - Requirements for adopting local NHMPs into zoning and development code: development under this option may continue to take place in areas currently identified and approved for development, provided there is adequate emergency infrastructure in place (water, firefighting, road access), construction follows approved fire hardening codes, and defensible space standards are required.

## Policy Analysis

### Overview of Policy Under Consideration

The recommended policy is the more active approach.

Zoning is a tool that can be used to trigger actions that can reduce risk, including defensible space, building code options, access, water supply, areas where building is limited, etc. Because zoning is an implementing tool, and the specific policy formula will need to be developed through follow up work, there isn't enough information at this point to provide a full return on investment analysis. However, what is known is provided below.

### Framework to trigger, catch all, run ROI on full policy recommendation with caveats

- State actions
  - The Oregon Legislature provides direction and resources for statewide mapping and data resources to fill essential data gaps, and maintain the information, necessary for local governments to conduct meaningful wildfire planning.
  - The Oregon Legislature provides policy direction, standards and "sidebars" for the Land Conservation and Development Commission, in coordination with Oregon counties and cities, to undertake a rulemaking process to require local planning for wildfire risk.
  - State resources are made available for technical assistance grants for local governments to undertake wildfire risk planning.
- Local government actions
  - Coordinate with the Land Conservation and Development Commission on rulemaking.

- Local governments undertake wildfire risk planning based on mapping, data resources, minimum standards set forth in rulemaking by LCDC, and local information about wildfire. A wildfire risk map, Comprehensive Plan policies, and standards included in local zoning codes are the most likely tools for implementing wildfire risk planning.
- When applications for new development, rezoning, expansion of a City's Urban Growth Boundary, or similar actions are made, local governments will apply the standards they've adopted addressing wildfire risk, such as defensible space, building codes measures, access, water availability, watershed protection and/or other options.

### **Cohesive Strategy Effects**

- The effects of implementing land use policies at the zoning level will be a conversion to fire resistant development through a number of measures, though the specific measures for each community will be determined through future work. Measures adopted to address wildfire risk will have a positive effect on most of the Cohesive Strategy priorities and challenges: vegetation and fuels (benefits are extremely localized, but adjacent to values at risk); homes, communities, and values at risk; fire response; and fire adapted communities.
- Defensible space implemented through zoning addresses the *vegetation and fuels* directly adjacent to development that contribute to placing a value at risk.
- These measures are an investment protecting *homes, communities, and values at risk*.
- Conversion to fire resistant development will improve the effectiveness and efficiency of structural protection during a wildfire event, decreasing the number of structures lost, improving overall *wildfire response*.
- Reducing losses in turn reduces or avoids negative effects to landowners and residents, including financial costs, emotional stress, health effects, and challenges with displacement. Other avoided costs include the recovery costs absorbed by local jurisdictions and insurance companies. Recovery time from a fire event will be faster. All of the benefits are characteristics of a *fire-adapted community*.
- The uplift to Cohesive Strategy priorities and challenges will only be realized by state and local government information and policy investment. The costs to make improvements on property, including measures such as defensible space and using fire resistant building codes, will be borne primarily by landowners and by the building industry. Coordination and implementation of the varying components and stakeholders of this policy will also require political capital.

### **Anticipated Uplift**

- Direct Wildfire Benefit
  - Conversion to fire resistant development will improve the effectiveness and efficiency of structural protection during a wildfire event, decreasing the number of structures lost, improving overall fire response.
  - Fire resistant measures can reduce the likelihood of fire spread to other structures and properties
- Primary Council Objectives Achieved
  - Human Safety
  - Vibrant Communities

- Public Finance
- Total Uplift VERY HIGH
- Uplift Certainty VERY HIGH

### Anticipated Costs

- Direct cost of implementation will be higher initially, then level out after implementation. Since total costs are policy dependent, the costs are **unknown at this time.** (\$/year, duration)
  - State: The Department of Land Conservation and Development estimates a need for 5 FTE, at an estimated cost of \$125,000 per employee per year, to implement the policy.
  - Counties: Staff resources will be required, as well as hard costs related to notices, holding public hearings, materials, etc. Estimated cost will be partially dependent on the standards developed through rulemaking by LCDC. Noticing costs alone will be approximately **\$1.00** per property owner as listed in the records of the Assessor, per jurisdiction. Staff time will be significant.
  - Landowners: Landowners and the building industry will bear the costs of implementing most additional measures, such as building code standards or creating defensible space. A Headwaters Economics report titled Building a Wildfire Resistant Home: Codes and Costs<sup>4</sup>, estimates the cost of building a wildfire resistant home (including ) is approximately the same as building a standard home. The costs associated with creation of defensible space will vary widely by location and fuel type. More information is needed to understand an ‘average range’ for the cost of creating defensible space. Landowners will ideally save money on their fire insurance by implementing fire resistant standards, though savings (if any) will vary by policy.
- Indirect Costs
  - Resource commitment and litigation potential surrounding the creation of new standards and regulations
  - Additional regulatory burden for the state, local governments, and landowners; increased litigation potential
  - Loss of private property rights
- Cost Score MODERATE
- Cost Certainty LOW

### Timeline

- Time to implement: 5 years
- Time of initial impact: 5 years
- Benefit duration: Through zoning measures alone, conversion to fire resistant properties will be slow, triggered by new development, but the measures implemented can endure for the life of the development if maintained.
- Maintenance Requirements: Periodic updates to risk maps and other information resources will be needed. Mechanisms will need to be created to upkeep specific measures addressing wildfire risk

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<sup>4</sup> Headwater Economics Report: Building a Wildfire Resistant Home: Codes and Costs, published online at <https://headwaterseconomics.org/wildfire/homes-risk/building-costs-codes>

(Examples include maintenance of defensible space standards, standards preventing replacing a roof made of fire resistant materials with one that is not, etc.)

- Timeline Score MODERATE

### Implementation Certainty

- Overall degree of certainty VERY HIGH
- Drivers
  - Political risk
  - Dependence on other policies
  - Dependence on other stakeholders

### Magnitude of Impact

Additionality relative to overall wildfire risk in Oregon depends on degree of integration with other land use measures (Defensible Space, Building Codes). On a stand-alone basis, the impact is MODERATE. Integrated with other measures the impact is VERY HIGH.

### Overall Priority

VERY HIGH

### Supporting Resources Required

- Data and accurate mapping to determine areas of high/moderate/low risk- dollar amount
- Rulemaking through LCDC will require DLCD staffing resources. DLCD estimates 5 FTE will be needed to support this effort.
- Technical assistance resources to local governments to update Community Wildfire Protection Plans and Natural Hazard Mitigation Plans.
- ODF and OEM staff costs for updates to CWPPs and NHMPs.
- Technical assistance resources to local governments to incorporate new rulemaking and updated CWPP, NHMP plans into their comprehensive plans and development codes.

### Key Assumptions

- Other Cohesive Strategy actions will be implemented, including Defensible Space standards and Building Code standards.
- LCDC will undertake rulemaking to set a minimum standard for addressing wildfire hazard planning in Oregon.
- Information resources will be developed and provided to decision makers concerning accurate risk assessment and mitigation measures.
- Local governments will adopt a wildfire risk map for their jurisdictions.
- Local governments will update their CWPP and NHMPs as needed.

- Local governments will update their comprehensive plans and development codes to account for mitigating the risk of wildfire to development in their jurisdictions.

DRAFT

Goal 1: Create Fire-Adapted Communities

Strategy 2: Diminish Wildfire Risk through Land Use

Element 4. Property Insurance

Element 4: Property Insurance

- Summary -

Recommendation 4

- Encourage insurance industry to implement uniform underwriting standards and policy changes that would motivate policy holders to meet Oregon Cohesive Wildfire Strategies, to harden structures, provide for and maintain defensible space, access for fire vehicles and evacuation routes.
- Create a risk map for wildfire risk informed by State information that can be used at the property ownership level.

Legislation	Voluntary/partnership
State Investment: Personnel	De Minimus impact on personnel
State Investment: Equipment	De Minimus
Governance	Overseen by Oregon Division of Financial Regulation
Reference	Land Use Committee Report
Prioritization	VERY HIGH / HIGHEST

## Element 4: Property Insurance

### - Detailed Analysis -

#### Problem Statement

- The current critical wildfire situation in Oregon as described in other sections of this report puts forth a series of fuel loading and suppression issues that directly impact lives, homes, outbuildings and commercial structures and ultimately communities as a whole. This presents a potential significant fiscal impact to the insurance industry and ultimately back to all insured statewide.
- The insurance industry is strategically positioned to support and incentivize the utilization of fire risk reduction tools as identified in the Oregon Cohesive Wildfire Strategy, as it will improve property owners' risk profiles and overall resiliency to wildfire.
- This policy moves the implementation and monitoring from an enforcement stance by public agencies to an incentivized action by the landowner.

#### Current Situation

Insurance coverage for wildfire most frequently comes in the form of homeowner and commercial property policies. The Oregon Insurance Code requires coverage for loss due to wildfire in all fire insurance policies.<sup>5</sup> The Department of Consumer and Business Services Division of Financial Regulation (DFR) monitors the affordability and availability of insurance. According to information available to the Division, there continues to be a robust homeowner insurance market in Oregon, with a variety of options for consumers. At present 149 companies are licensed to write homeowner coverage in the state, and over \$866 million in direct premium was written in 2018. While sharp spikes and dips in premiums can be an indicator of affordability problems, the market in Oregon has remained fairly steady.<sup>6</sup>

Similar to other states, Oregon has an "insurer of last resort". The Oregon FAIR Plan Association<sup>7</sup> (OFPA) offers basic fire coverage to all homeowners, even those that cannot obtain coverage from traditional insurers. The OFPA is a statutorily created non-profit association run by its member companies.<sup>8</sup> Every insurance company licensed to write property insurance in Oregon is required to be a member of the association and pay assessments to fund its operation. Coverages under OFPA policies are very basic and only cover loss due to fire and certain other risks.<sup>9</sup> OFPA policies are capped at \$400,000 for personal dwellings and \$600,000 for commercial buildings. OFPA is Oregon's insurer of last resort: an insurance

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<sup>5</sup> ORS 742.202, 742.206

<sup>6</sup> Direct written homeowner insurance premium has increased between four and seven percent each year between 2015 to 2018.

<sup>7</sup> <https://orfairplan.com/>

<sup>8</sup> ORS 735.005 to 735.145

<sup>9</sup> OFPA dwelling policies cover fire, windstorm, hail, explosion, riot or civil commotion, aircraft, vehicles, smoke and volcanic eruption, and vandalism and malicious mischief. It does not cover many risks typically found in a traditional homeowner policy such as liability, theft, or water damage. See <https://orfairplan.com/agents/insurance-coverages/>.

agent must first seek coverage from two standard insurance companies before they can place an OFPA policy. OFPA has not placed a significant number of new policies, indicating that most property owners are able to obtain coverage in the standard market.

### **Recent Trends**

DFR met with representatives from most of the major insurers that write homeowner's policies in June, 2019. Insurers confirmed they generally plan to continue to offer coverage in the entire state although improved data models may lead carriers to increase rates or no longer offer coverage to specific properties.

Data is not currently available to DFR for losses due to wildfires each year, or specific data regarding price and location of homeowner and commercial properties. Additional data could provide a clearer picture of insurance affordability and help identify shifting market trends.

### **Business-As-Usual Forecast**

The Business as Usual option with increasing severity in the wildfire situation has the strong potential to result in a severe fiscal impact to the insurance industry which, in turn, would be passed on to the insured public in the form of increased premiums and higher deductibles. If patterns of structural loss are established, there is a likely possibility of insurers leaving the state, or declining to offer policies in high risk areas. This is currently occurring in California, although it is important to note the insurance industry and regulatory structures are very different in California than Oregon.

### **Policy Options Available to State, and Industry**

- More active  
A policy developed by the State of Oregon in conjunction with the Oregon insurance industry. Insurance industry will be encouraged to implement uniform underwriting standards and policy changes that would motivate policy holders to meet Oregon Cohesive Wildfire Strategies, to harden structures, provide for and maintain defensible space, access for fire vehicles and evacuation routes.
- Less active  
Continue with current insurance model.

## **Policy Analysis**

### **Overview of Policy under Consideration**

The recommendation is to create Oregon Cohesive Wildfire standards that will encourage the insurance industry to incentivize compliance via underwriting, pricing, and approved coverages to reward

Oregonians for taking prudent steps to harden properties and create defensible space in areas exposed to wildfires.

Implementation of this policy recommendation is a multiple stakeholder partnership designed to incentivize property owners in High Fire Risk Areas to undertake actions to reduce fire risk.

- State of Oregon actions:
  - Department of Consumer and Business Services Division of Financial Regulation works closely with the insurance industry to identify a uniform set of incentives for property owners to meet the recommended Oregon Cohesive Wildfire standards. DFR can survey insurers to better understand the extent to which consumers may save money by engaging in risk mitigation efforts, such as increasing defensible space, carefully choosing landscaping materials, or using fire resistant building materials. DFR can work with insurers to develop industry-wide standards for risk mitigation and the dollar amount of insurance discounts in order to make insurance incentives more tangible for property owners.
  - The insurance industry helps fund wildfire suppression efforts through the fire marshal assessment under ORS 731.820. Insurers currently pay a 1.15 percent premium tax on policies that cover fire risk. The legislature could reexamine the degree this assessment is commensurate with the fire suppression needs of the state.
- City/County actions:  
Planning agencies: Provide and maintain mapping information and educational information on High Fire Risk Areas to insurance representatives, applicants, real estate agents, builders and the general public.
- Local Fire agencies/organization:  
Provide education and courtesy inspections to assist participants with meeting the guidelines.

### **Anticipated Uplift**

- Primary Council Objectives Achieved
  - Human Safety (reduce high-priority wildfires)
  - Human Health (reduce smoke in proximity to population)
  - Vibrant Communities (health, economy)
  - Public Finance (reduce most costly suppression)
- Uplift Score HIGHEST
- Uplift Certainty HIGH

### **Anticipated Costs**

- Direct cost of implementation
  - State- materials and staff time to coordinate with insurance industry, develop standards. Exact cost unknown at this time.

- Counties- Costs are primarily related to zoning section.
- Landowners- This will depend on the specific policies adopted, property specific information, and insurance discounts offered. Cost unknown at this time.
- Indirect Costs
  - Changing insurance requirements for policy holders
- Cost Score MODERATE
- Cost Certainty UNKNOWN

### **Timeline**

- Time to implement: 2 years
- Time of initial impact: 3 years
- Benefit duration: If requirements are maintained, the benefits could carry through the life of the insurance policy.
- Maintenance Requirements: Defensible space, periodic inspections/documentation from insurer
- Timeline Score HIGHEST

### **Implementation Certainty**

- Overall degree of certainty: MODERATE
- The implementation of this policy recommendation is totally dependent on an area of the insurance industry not regulated by state government and, while it is defined as excellent risk management by the industry, competition amongst the 149 providers in the state may limit the interest in participation.
- Homeowners may not participate as they determine that the cost benefit ratio is insufficient to invest in the options, or they are ambivalent about the potential for wildfire to damage their property.
- Inability of the state and or local governments to develop maps of High Fire Risk Areas, and provide continued support will hamper the insurance industry from determining homes at risk or their ability to create accurate risk mapping for rates and coverage.

### **Magnitude of Impact**

With full implementation this will result in a significant reduction of wildfire structural risk of insured structures. VERY HIGH

### **Overall Priority**

VERY HIGH / HIGHEST

### **Supporting Resources Required**

- High Fire Risk Area mapping
- Defensible space standards
- Hardened structures standards

- Access standards
- Water supply/source requirements

### **Key Assumptions**

- Other Cohesive Strategy actions (e.g., defensible space, building codes)
- Stakeholder actions (Federal, County, Private Sector, Individuals)
- Implementation Considerations
- Other
- Building Codes Division: Structural hardening standards and inspection policies.
- Oregon State Fire Marshal, Oregon Department of Forestry: Develop statewide guidelines for defensible space, access (fire operations, evacuation, etc.), water and water supply for fire operations.
- Oregon Emergency Management: Including mapping of High Fire Risk Areas in Natural Hazards Mitigation Plan requirement. Seek state and federal funding opportunities for structural fire risk mitigation.
- Oregon Explorer: Develop and maintain an accurate map of High Fire Risk Areas.
- Building agencies: Ensure staff is trained on the boundaries of High Fire Risk Areas, hardened structural requirements and availability of options.
- Emergency Management Agencies: Including mapping of High Fire Risk Areas in Natural Hazards Mitigation Plan. Seek state and federal funding opportunities for structural fire risk mitigation.