

The Almeda Fire: A New Wildfire Era

Produced by Eden McCall

June 2022

Featuring |

- [Pam Marsh](#), State Representative, District 5
 - [Jamie McLeod-Skinner](#), Talent Interim City Manager
 - [Bob Horton](#), Jackson County District 3 Fire Chief
 - [Archival Audio](#)
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EP 3 | Fire & Flooding: Preparing for Natural Hazards

Intro

Last time, on The Fire Story:

Compilation from Episode Two

[Pam Marsh](#): The fire had destroyed 2,500 homes, displacing probably six to 8000 people, many businesses, and we have been in the act of recovery ever since.

[Jamie McLeod-Skinner](#): The visual of the houses being built up, that's usually the visual we see, but there's a tremendous amount of behind the scenes work and preparatory work in order for those things to be rebuilt.

[Pam Marsh](#): The part of the community that is starting to rebuild is our single family homes. The manufactured home sector, which was 1,00 of those 2,500 homes, has not rebounded.

[Jamie McLeod-Skinner](#): There's always that tension there between rebuilding as quickly as possible, and there's a tendency for people in the community to want to rebuild what was before, but also factoring in some of that thinking about how do we build more safely.

[Sky Stewart](#): They said we're done with fire. We don't, we don't need a fireplace, so we're definitely prioritizing some of those fire hardening ventures throughout. Their fences and their landscaping, they've made a lot of choices to reduce any potential future fire exposure.

Last episode, we visited Talent and Phoenix to learn about recovery after the Almeda wildfire, and we learned how this fire instigated a shift in how we are preparing for future fires. But we also discovered that, despite efforts over the past decade to ensure homes are built more fire resistant, these changes won't apply in time to affect Talent and Phoenix.

However, while newly rebuilt homes in the area may not be fire resistant, they are being built to withstand another type of natural hazard.

Audio of Wagner Creek in Talent, Oregon.

In this final episode, we're going to discover why homes in Talent are being rebuilt flood resistant even though they were destroyed by a wildfire. We'll hear from the fire experts and community representatives that we've met in this series so far, and we'll dive into old archives to learn how our history with flooding and fire have affected how we prepare for these hazards today. After learning how the costs of wildfire risk are increasingly impacting all Americans, we'll review state and federal policies aimed to address the growing wildfire threat as we consider the most important question of all: how do we live in this new wildfire era?

I'm Eden McCall, and you're listening to The Fire Story.

Flood Resistant Talent

So why are homes being rebuilt flood-resistant when it was a *wildfire* that destroyed them? To understand this perplexing reality, we have to return to the site of the Almeda fire.

Audio of walking along Wagner Creek in Talent, Oregon.

The riparian waterway, Bear Creek, that became a fire thoroughfare of flammable trees and brush? Not only was the area at risk from wildfires, but it also had a [history of flooding](#). Alongside the creek is flat, rocky terrain and non-porous soils that create conditions for rising water levels to spread across Rogue Valley.

The worst flood in the county's recorded history [occurred in 1964](#). The Christmas Day flood [destroyed 7,032 homes](#) across Oregon as warm rains melted snow and flooded rivers in multiple Western states. In Jackson County, floodwaters crested at [35.2 feet high](#) - a height that would become the area's standard [100-year flood level](#).



[\[USGS, Rogue River during the Christmas Day flood of 1964, December 11, 2014\]](#)



[\[Southern Oregon History, "Bear Creek floods the Talent area, February 28, 1940\]](#)

There won't be a flood as high as the 1964 Christmas Day flood every one hundred years, but the 100-year flood level signifies that there's a 1% chance every year there could be.

Jamie McLeod-Skinner: There's this term 100 year flood. And what that has meant is you look back 100 years and all the data at the highest point that the floodwaters have reached, and that's your 100 year flood.

That's Jamie McLeod-Skinner again. She was Talent's interim city manager who helped the city and residents rebuild. Last episode, Jamie discussed the multitude of challenges the city and individuals encountered, but what we didn't discuss was how this history of flooding dramatically affected rebuilding.

Because while many people may not even remember the Christmas Day flood of 1964, by setting the standard for potential flood levels, the event would affect how homeowners who live along the creekway could build for generations to come. And in Talent, more than [176 properties fall within reach of floodwaters in the event of a 100-year flood](#).



[\[Mail Tribune, Water rushes through downtown Ashland during the second worst recent flood in Jackson County, the New Year's Day flood of 1997, April 30, 2017\]](#)

In September of 2020, when the Almeda fire burned along the creekway, about 80% of these homes burned (38 burned properties/176 within floodplain *Google Maps*).

Jamie McLeod-Skinner: There was one, a large mobile home park, and another, in Talent, that were lower down elevation in the floodplain.

These homes, built largely in the 1970s and 1990s, had been grandfathered-in to older flood rules that allowed for lower foundations and other less strict mitigation measures, but after 50 years, flood regulations had changed. So when it came time to rebuild, homeowners had to take special measures to reduce the risk their new home would flood, even though it may have never flooded before.

Jamie McLeod-Skinner: They essentially had to bring in dirt and raise up the elevation of the home a couple feet.

While raising a home may sound simple, it isn't cheap.

Pam Marsh: We are seeing manufactured homeowners who are seeing \$40,000 installation costs because they have to put their homes on piers.

That's Pam Marsh again. She represents southern Jackson County in the state legislature and became the Vice-Chair of the House Special Committee On Wildfire Recovery after the 2020 wildfires. She heard firsthand from her constituents how flood mitigation codes affected the community.

And remember that Talent was one of the District's affordable housing areas? Well, the most affordable real estate in Talent was located on the floodplain. Individuals who bought manufactured houses two decades ago often [paid less than \\$40,000 for their homes](#) (*HUD Report 1998 - Pg. 113*). Now they had to pay \$40,000 for an elevated foundation alone.

But despite exorbitant costs for homeowners, there's no budging on these requirements. That's because Talent participates in a national insurance and incentives program run by the Federal Emergency Management Agency (FEMA), called the [National Flood Insurance Program](#). We'll learn more about the history and specifics of the National Flood Insurance Program later, but the program essentially offers homeowners in flood-prone areas flood insurance if local jurisdictions manage their floodplain practices. Managing the floodplain includes limiting where construction can occur and mandating structures be elevated above potential water levels to reduce the risk of flooding for the entire community.

For one homeowner, this management meant not being allowed to rebuild at all.

Jamie McLeod-Skinner: There was one home that was actually in the floodway. And we just said, "Look, sorry, you can't." Because that's a health and safety issue.

A floodway is the area directly in the path of flood waters.

Jamie McLeod-Skinner: If you build stuff there, when there's a flood, it restricts the flow. And so it has kind of a double, a double whammy danger.

Like with wildfire, where radiating heat from one burning house can cause even a fire resistant home to ignite, houses built in a floodway can actually increase the likelihood of flood waters reaching other nearby homes. So even though the house had been in the floodway for decades prior to the fire, the homeowner wasn't allowed to rebuild in the same spot.

On Talent's City website, there's a whole [page on Flood Protection Information](#) where residents can learn about their flood risk and what steps they need to take to build in the floodplain. Maps show which properties are at risk of flooding and to what degree, and [owners in the floodplain must have a surveyor or engineer sign an Elevation Certificate](#) verifying their house is built above the 100-year flood level.

But if you look for a similar page about wildfire risk and regulations on the city's website, you won't find one. And that's because, as we learned last episode, there are no federal or state requirements to build fire resistant, and there are no areas designated as too high-risk to build in.

But that makes you wonder: why do we have strict and costly building codes to prepare for floods many don't even remember, but not requirements for wildfires that are burning with more frequency and intensity across the state?

Flooding History

To uncover why we don't prepare for wildfire like we do for flooding, we need to understand how these regulations came to be - and that means understanding our history with flooding and fire.

Floods were a big deal for Americans throughout the 1900s. In 1913, the Ohio River flooded, [resulting in the death of more than 400 people and the destruction of more than 20,000 homes](#). It caused [\\$200 million in property losses](#), the equivalent of over \$5.5 billion dollars today ([\\$5,679,757,575.76](#)).

[\[PublicResourceOrg, "The Valley of the Giant: Mississippi River Story," 1938\]](#) 1912... 1913... 1922.. 1927. Yes, 1927.

The [Great Mississippi River Flood of 1927](#) spanned nearly 13 million acres of land. That flood [left 700,000 homeless](#) and killed up to 500 people.

By the time the Mississippi River flooded in 1927, Congress had been trying to figure out how to reduce flood risk for over a decade. The predecessor of the National Flood Insurance Program, the program that would set the regulations for how Talent could rebuild today, actually started in [1917 when Congress passed the Flood Control Act](#). The act provided today's-equivalent of almost \$1 billion (45 million - [\\$988,410,937.50](#)) for controlling flooding in the lower Mississippi and Sacramento River areas. Projects were funded to create physical mitigation measures, like dams and levees, to try to reduce the likelihood of flooding.

[\[PublicResourceOrg, "The Valley of the Giant: Mississippi River Story," 1938\]](#) Thousands of miles of levees have been built, long earth walls along the stream to hold back the overflow. Dams have been built, giant bulwarks to hold the floodwater until it can be safely released. Floodways have been built, auxiliary channels to divert waterflow when the Giant storms down again.

The problem, though, was that by lessening the risk of minor floods, these mitigation measures enabled more development in floodplains. When floods did break through, they damaged even more property and displaced even more people.

[\[The Library of Congress, *The River*: 1938\]](#) 1903, 1907, 1913, 1916, 1922, 1937. We built a hundred cities and a thousand towns, but at what a cost.

Because of these devastating floods, following the Great 1927 Mississippi flood insurers in 1929 stopped covering flood losses. They couldn't offer insurance that was affordable for consumers and profitable for themselves, so Americans were left on their own as floods continued to devastate communities across the country.

[\[The Castle, 'News Parade of the Year,' 1948\]](#) Disaster grips the Pacific Northwest as the Columbia River, swollen by unprecedented rains, spreads destruction. 1000s are homeless and flee for safety with a damage running into the millions. Relief supplies are brought in by boat...

The town of Vanport, located along the Columbia River in Oregon, was entirely destroyed in 1948. Levees and embankments were supposed to protect the 40,000 residents from flooding, but when the Columbia River swelled thirty feet, within minutes, the town was 15 feet underwater ([29.975 feet](#)).



[\[Oregon Encyclopedia, Aerial view of Vanport before it flooded\]](#)

And who was affected by the flooding? [Over a third of those displaced were African Americans](#), who had settled in the floodplain because they were discriminately restricted from living in most parts of Portland. And flooding has historically impacted already marginalized and disadvantaged Americans most because floodplains are more affordable for housing - or, like in the case of Vanport, are the only option for housing available.

And after the Columbia River flooded in 1948, there was even more flooding in 1951 along the Missouri and Mississippi Rivers...

[\[News Magazine of the Screen, Newsreel, 1952\]](#) Flying from Washington in his personal plane, President Truman makes a sweeping survey tour over the Mississippi and Missouri flood areas to get a firsthand view of the damage done in the latest floods to hit the Midwest. The violently swirling waters have forced the evacuation of over 125,000 people in nine states. Scenes like this have caused the president to renew his demands for drastic flood controls of America's untamed river valleys.

But preventing huge floods through flood control wasn't working, private insurers still weren't insuring, and the federal government was spending more and more on disaster recovery aid.

[\[The Library of Congress, The River, 1938\]](#) He sent every branch of the service down the river to help the sleepless engineers fight a battle on a 2,000 mile front. The army and the navy, the coast guard and the marine core, the CCC and the WPA, the Red Cross and the Health Service, fought night and day to hold the old river off the valley.

No matter how many Americans were sent to combat the floods, we couldn't defeat rising waters.

Then Hurricane Betsy in 1965 became America's first billion-dollar hurricane, and, with that, [Congress decided that](#) physically preventing floods wasn't working. [The country needed a new approach](#) to address the flood problem.

So Congress put together a task force in 1966 to brainstorm ways the federal government could reduce flood risk nationwide. That task force was led by Gilbert White, a geographer who would come to be called the "father of floodplain management."

[Gilbert White](#): A number of us had been opposed to the Flood Control Act of 1936, which had offered federal support for flood control activities and streams around the country, and had been very much encouraged by the dramatic and disastrous experience of the big floods of 1936.

By the late 1960s, White had been researching flood control effectiveness for decades.

[Gilbert White](#): I'd written my dissertation on problems of use of floodplains. And I began wondering, what effect did the Act have on the use of floodplains in the United States, and was fortunate and getting a little research helped to get a team of geographers to go out and look at American floodplains sample areas and find out what had happened. And in the course of doing this, we found that the effects had been, by and large, counterproductive, yes. Which was a great surprise to most of the engineers who've been working on flood control projects, and which then set in motion a whole set of of further inquiries, which were necessary to try to explain this very simple phenomenon that what people had undertaken to do in controlling, mastering floods had led to greater flood damage in the United States.

White had identified a paradox that would come to be called the 'levee effect.' By constructing levees to protect people and property from floods, the government was incentivizing individuals to invest more in floodprone properties, which increased damages when the levees breached. And because individuals were no longer paying for flood insurance each year, there was no increased cost to live in high risk areas that

might discourage building there. Instead, the majority of the financial risk from flooding was carried by the government.

So the big question for White's task force was how we could overcome this 'levee effect,' and in their report to congress the task force recommended a new approach to address the flood hazard. The idea was to create a federal insurance program that would provide safety nets for Americans while disincentivizing development in flood prone areas.

The National Flood Insurance Program was written into law two years later. The program kickstarted a federal mapping effort to identify every populated area at risk of flooding to know where to prioritize risk mitigation efforts and require flood-safer building standards, and, over the coming decades, the program would evolve to try to meet its goals of serving Americans while not subsidizing development in high-risk areas.

[Further history: [FEMA History of Flood Control](#)]

The 100 year flood level designation that determines how high homes have to be built? That standard began in 1973 - now almost half a century ago. In 1989, the program began requiring buildings grandfathered into older regulations to meet most recent standards when improvements add up to 50% or more of the market value of the structure - a rule aimed to require homes affected by flooding to build back more safely. And building codes for flooding became standard nationwide in 2000 when the International Building Code, which is the standard for construction across the United States, adopted the Program's construction requirements.

Since its inception, the National Flood Insurance Program has offered flood insurance for individuals if their communities agree to manage floodplain practices, and, for decades the program, has offered premium discounts for communities that go above-and-beyond base requirements.

Now, communities like Talent are required to regulate their floodplains in order for residents to get federally backed mortgages and for the city to get federal assistance.

Today FEMA runs the program. The agency is responsible for continuing to update floodplains maps and incentivize mitigation measures. And FEMA has [shown that these flood mitigation requirements save lives, property, taxpayer dollars, and economic and social hardships.](#)

Gilbert White: I think, over time, the whole mode of looking at ways of dealing with floodplain use and flood damages, has changed. It, it was a good many years, but it led in a much broader sense to a different way of looking at resource management, thinking not of there being a single kind of solution. But asking, as a geographer properly would ask, what's the whole range of possible solutions?

After decades of insufficient flood control during the first half of the 20th century, scientists and policymakers came together, asked what government actions would keep communities safest and realized we needed to adapt to the landscape instead of thinking we could sufficiently remove the hazard.

The National Flood Insurance Program, while it has run into logistical and financial trouble providing insurance as floods have caused more damage during the 21st century, ensures that communities respond to flood risk by requiring mitigation measures and providing an incentive to maintain flood mitigation. And new tools for modeling flood risk and identifying accurate premium rates are being implemented.

So our history and continued struggle to manage flood risk helps explain why Talent today is rebuilding flood resistant after the Almeda wildfire. While long-ago floods and subsequent government actions may at first seem unrelated to our current problems with wildfire, our country's progress managing flood risk may provide insights into how we can respond to fire today.

Fire History

But before we can consider how to apply lessons from flood mitigation to our current fire problems, we need to look back at the past century of wildfire policy.

So let's return to the early 1900s, when fires, like floods, were greatly impacting communities. In 1918, the [Cloquet Fire in Minnesota](#) destroyed thousands of homes and killed almost [1,000 Americans](#). And the [Peshtigo Fire of 1871](#) was America's deadliest, killing up to 2,500 people as it burned over a million acres in Wisconsin. At the same time as the Peshtigo Fire, a fire in Chicago destroyed the city and [cost roughly \\$4 billion](#) in today's dollars to rebuild. These fires led to more casualties and more property damage than the Great Mississippi River Flood of 1927.

But while floods became a bigger threat to urban and suburban areas during the early 1900s, displacing more people and costing more in damages, the threat from wildfire actually faded. Starting in the late 1930s, wildfires became almost a non-issue for communities. Of the 10 most deadly wildfires in our country's history, seven occurred before the mid 1930s. Unlike floods, wildfires were no longer taking lives and destroying towns. Instead, fires were burning in the back country...

[\[State of California, Campaign Fire PSA, 1950\]](#) We all know that fires destroy, both directly and indirectly, those natural resources without which none of us can exist.

Communities weren't at risk, and insurers were still offering fire coverage to homeowners, but the timber industry was concerned.

One fire in 1910, named "The Big Burn," burned through more than 3 million acres of forest in Washington, Montana, and Idaho - a huge loss for Timber. And a series of fires from 1933 to 1951 in Oregon, cumulatively called the [Tillamook Burn, led to the equivalent of \\$10 billion in lost timber supplies today](#).



[USFS, To recuperate and save timber supplies, loggers fell fire killed Douglas Fir trees and began the post-fire (AKA salvage logging) process known today, August 31, 1938]

[Vocational Guidance Films Inc., *Forestry and Forest Industries* Labor PSA, 1946] Fire, due chiefly to man's carelessness, ate up thousands upon thousands of acres. Finally, destruction of this natural resource reached the point where America awakened to the need for conservation.

With fires burning fewer communities, but more future lumber, Congress saw the need to protect the economic value of timber, so the federal government passed laws and funded the Forest Service to put out fires and protect trees at any cost.

[USFS and The Advertising Council, Inc., "Vision in the Forest" - Smokey Bear PSA, 1957] Let's do as Smokey says and protect our forests...

Part of the funding went to promoting the Smokey Bear campaign to stop human-caused fires, and a lot of effort went into suppression, using heavy machinery and manpower to try to extinguish every fire.

[USFS and The Advertising Council, Inc., "Vision in the Forest" - Smokey Bear PSA, 1957]
Singing - He can find a fire before it starts to flame. That's why they call him Smokey, that was how he got his name...

For a time, this strategy succeeded. By 1950, large fires were few and far between.

[State of California, *Campaign Fire* PSA, 1950] The California Division of Forestry has, for more than 30 years, been building a First Attack fire suppression organization. Our progress is encouraging, for 95% of

our fires, starting on lands protected by the division, are today controlled before they have burned more than 100 acres.

[\[USFS and The Advertising Council, Inc., “Vision in the Forest” - Smokey Bear PSA, 1957\]](#)
Singing - Smokey the Bear, Smokey the Bear...

Suppression practices worked well during most of the last century. During a cooler, wetter climate, it was easier to contain the fires. Annual acreage burned through by wildfires in the continental [US dropped from 40 to 50 million acres in the early 1930s to about 5 million acres in the 1970s.](#)

This early success managing fire contributed to a perception of wildfire as controllable. Unlike flooding, fires could be fought - and defeated.

And that brings us to another perception of fire that developed during the 20th century...

[\[USFS, *Wildfire!*, 1971\]](#) From as far away as New Hampshire and Alaska, firefighters converge at Wenatchee [National Forest]. Great machines ram the silence, and young men are led against an enemy...

But is fire the enemy? It turns out, [the idea that fires destroy forests isn't accurate.](#) While fire can damage timber supplies, it doesn't destroy natural, fire-adapted ecosystems. Fire is an ecological process that's critical for healthy wildlands and has occurred in the West since the retreat of the ice sheets almost 12,000 years ago. Most of these fires, especially east of the Cascade mountains, are moderate to low severity, meaning they burn underbrush like grass and shrubs and don't kill or even damage many trees. West of the Cascades, forests are adapted to severe wildfires that burn less frequently but more extremely. Whether high or low severity, fires release nutrients into the soil that reinvigorate ecosystems. It may take decades before a blackened hillside is blanketed with towering trees again, but if you drive through the Cascades during the spring, after our recent fires, you can see rejuvenation already.

Audio of forest.

Fireweed flowers and other pioneer species grow quickly. Many creatures, including deer, cougars, and bears, thrive in areas that have burned. And a number of birds, like the Clark's Nuthatch and the Black backed woodpecker, are fire dependent and need fire to survive.

[Audio of Black backed woodpecker and Clark's Nutcracker](#)

But because we didn't understand that fires play an important role in fire-adapted ecosystems, we removed all fire from the landscape until the late 20th century. In regions where fires used to burn through frequently, removing fire has allowed fuels like grasses and shrubs to build up and create the potential for more intense and severe fires. And even more concerning, now the climate is changing. No matter what we do to get rid of underbrush or thin denser forests, differences in snowmelt levels, rain patterns, and average temperatures across Western states are creating the conditions for more frequent and more intense wildfires.

And further compounding the problem, now more people are living in wildfire-prone areas. The Wildland Urban Interface, or WUI, which is the area where houses and wildland areas intermix, [grew by 61% in California, Oregon and Washington from 1990 to 2010](#). And the WUI is still growing, even as homes in these areas intermixed with vegetation are becoming more likely to burn due to drought and increasing temperatures.

Economics of Insurance

Because more people are moving and investing in increasingly high risk areas, wildfires are destroying more homes and businesses. And similar to when insurers were weighing the costs of offering coverage for floods in the 1920s, today insurers are grappling with the growing cost of offering coverage in high wildfire risk areas.

Last episode we learned how homeowners after the Alameda fire encountered problems when relying on insurance to rebuild, but increasingly, in the West, getting insurance at all can be difficult.

To understand how insurers are responding to the growing risk of fire and what this market response could mean for homeowners, renters, and, ultimately, every Oregonian, we only have to look a few hundred miles south to the populated hillsides of California.

[\[KPIX CBS SF Bay Area, “California Homeowners Say Fire Insurance Is Getting Hard To Find In High Risk Counties,” January 4, 2018\]](#) An increasing number of homeowners in California are complaining that it’s getting harder to buy fire insurance.

Homeowners who live in wildfire-prone areas of California have had to pay considerably higher prices for fire coverage over the past decade. Unlike other states that include fire coverage in all homeowner policies, fire coverage in California is separate, and, now, many homeowners have received letters from their insurers that they won’t be covering them for fire any longer - even if the homeowner has been with the insurer for decades.

[\[CBS News, “Fire insurance premiums pricing out California homeowners,” November 1, 2019\]](#) Francis Mancraig is among at least 350,000 Californians whose fire insurance policies have been canceled..

As we discussed last episode, banks and government lenders require homeowners to purchase and maintain homeowners insurance. So if insurers stop insuring or increase prices dramatically, homes become both harder to own and afford and also harder to sell.

For homeowners who can’t find coverage, [California’s insurer of last resort, the FAIR Plan](#), provides bare bones insurance at a costly price. Not only is the plan more expensive, but it also only reimburses homeowners for what houses would sell for on the market - which means the plan doesn’t guarantee if a fire burns through, a homeowner could afford to rebuild their home. The FAIR Plan also relies on pooling funds from all insurers who write homeowners’ coverage in the state, but there’s concern that more costly fires could drain the Plan’s funds and, ultimately, require taxpayer dollars to supplement Californians’ losses.

[\[NBC News, “California Homeowners Losing Fire Insurance Coverage As Threat Grows,” August 25, 2021\]](#) In 2019 alone, insurance companies dropped the policies of about 230,000 homeowners in the state. That’s a 31% increase from the year before.

California and its insurance industry are trying to work out how to offer affordable policies in increasingly uninsurable areas. So far, the state has forced insurers to offer coverage and has artificially kept prices lower. In 2020, the state passed a moratorium that prohibits insurers from dropping homes after a nearby fire for at least a year. Some insurers are trying to reduce their risk, while continuing to offer coverage, by incentivizing home hardening.

But despite efforts to address increasing prices and potential insurance deserts, insurers will be forced to respond to the increasing probability and impact of catastrophes, which mean these problems aren’t going away...

[\[CBS News, “Fire insurance premiums pricing out California homeowners,” November 1, 2019\]](#) As wildfires in California get worse, insurance companies are limiting their exposure in wildfire prone areas.

And the reason why comes down to math.

[\[CBS News, “Fire insurance premiums pricing out California homeowners,” November 1, 2019\]](#) They’ve paid more than \$24 billion in claims in just the past two years.

Math sounds

Actuarial science is how insurers determine what rates to charge consumers, and it involves a lot of statistics, economics, and modeling. For catastrophes like flooding and fire, insurers often use Catastrophe Risk Modeling to assess risk. These models run simulations of possible events based off Hazard and Vulnerability data. For wildfire, that Hazard data includes variables like temperature, drought level, and topography. Vulnerability data could be a home’s roof type, the distance to a fire station, and surrounding vegetation. The models then output the wildfire risk for a neighborhood or even an individual property. Paired with information about the value of a home, insurers calculate how much to charge a homeowner each month. And if the Hazards or Vulnerabilities are greater than they used to be, the prices will reflect this increased risk.

Unlike all other states, insurers in California aren’t allowed to use Catastrophe Risk Modeling. Instead, pricing must be based on 20 or more years of historical losses. Proponents say this requirement keeps rates more equitable: the idea being that if an area hasn’t burned in the past, insurers shouldn’t increase prices or drop homeowners. But insurers argue that Catastrophe Risk Modeling will reduce prices for many homeowners and that relying on historical data might actually misgauge future risk - like if insurers are including the 2020 wildfire season, a potentially outlying year, to set prices.

Whether or not California switches to allow risk modeling, though, the trend is clear: more fires are burning more homes, which costs more to rebuild, which means insurance prices will increase.

So the risk is growing, and insurers in California don't like the odds. But is Oregon facing similar insurance issues? Are homeowners here paying a lot more and unable to find coverage?

I asked Representative Marsh about whether her constituents are encountering similar insurance troubles...

Pam Marsh: Well, yeah, lots of thoughts. But so far, in Oregon, we're not yet seeing a flood of rejections, because of people living in vulnerable places, I think it is getting harder for sure, especially for people who live in the woods, to get insurance. But it's not yet to a point where they can't find any product on the market.

Not yet... Marsh is familiar with homeowners insurance because her constituents have concerns about price increases and non-renewals, but she hasn't followed California's problems closely.

Pam Marsh: I'm not super familiar with it. But I've looked at it thinking, you know, it's likely that we'll get to that point at some point in Oregon also.

For Representative Marsh and other Oregonians, the minutia of California's problems and solutions are less important than the trends they represent - but what do we know about the specifics of Oregon's wildfire insurance coverage?

The state's [Division of Financial Regulation monitors and regulates the private insurance market](#) to make sure it remains equitable and affordable. And so far, compared to California, it has. From 2018 through 2020, the number of homeowners relying on Oregon's version of the FAIR plan remained about the same.

There are about 150 companies licensed to write homeowners coverage in Oregon. State Farm is Oregon's largest homeowners' insurance carrier, making up over 20% of the market. After the 2020 fire season, State Farm paid out twice as much in claims as it got in premiums.

Because catastrophes are a low-probability, high-impact risk, insurers like State Farm expect and can handle large payouts. For most insurers, an acceptable amount to pay out on average is [40-60% of the premiums they take in](#). But if these catastrophes become a semi-regular occurrence and payouts of 200% occur more frequently? From a business standpoint, that's not profitable or sustainable.

Potentially in response to increasing wildfire-related pay outs, the top 10 insurers in Oregon increased their rates by 5.5% in 2020. That's less than in California where rate increases were as high as almost 7%, but compared to the two years prior in Oregon, when insurers raised rates on average 2.6% and only .04%, 5.5% was more than double the rate increase. And for a homeowner, this rate increase could look like having to pay hundreds of dollars more for the same coverage annually or accepting a deductible increase.

Bob Horton: The insurance market either dropping folks or substantially increasing premiums is a challenge that we know is going to hit our patrons really hard. If you already have a house and it's in the interface, and then you lose your insurance like that, to me seems catastrophic.

Bob Horton is a Fire Chief in southern Oregon. He coordinates and leads fire response to protect the 54,000 residents within his district that encompasses both urban and wildland-urban interface areas. In the first episode of this series, we spoke with Horton to learn how hot, dry conditions and extreme winds created an unstoppable wildfire and came to understand why individuals, even after a recent wildfire like Almeda, are predisposed to underestimate their home and community's wildfire risk.

In addition to being a Fire Chief and policy researcher, Horton is also the Vice-Chair of the Wildfire Policy Committee for the Western Fire Chiefs Association, an organization aimed to help connect Fire Chiefs and promote fire preparedness and response. And Horton explained that wildfire coverage is becoming increasingly problematic across the Western United States.

Bob Horton: We have started to see shifts in insurance markets, where homes are being deemed uninsurable because of the wildfire risk, or the premiums are so great that that truly becomes the cost that makes it unaffordable housing, not the cost of the house itself, but the cost to insure the house, which either leaves people uninsured, or under insured, or in a struggle.

To make up for losses in wildfire prone areas, these increases in premiums will eventually impact all Oregonians.

Across the west, wildfires are becoming increasingly unpreventable, increasingly costly, and increasingly uninsurable. Almost every year, fires break new records for acres burned through and homes destroyed, but because we've had success preventing fires over the past century, there hasn't been decades of policy centered around adapting communities for fire like there has been for flooding. It took Gilbert White decades to reshape how we respond to flooding nationwide, but we don't have decades to address the wildfire problem.

In addition to individuals' safety and insurance market concerns, wildfires are draining state funds.

A State Issue

For the past decade, Oregon has spent more than [\\$70 million on average each year trying to put out wildfires](#). And suppression costs are only the beginning. According to a study by [Headwaters Economics](#), a leading non-profit research group that studies wildfires' impact on communities and how land use and planning can reduce wildfire risk, [found that more than 90%](#) (91%) of losses from wildfire happen after the flames subside - costs like property damage, degraded ecosystem services, business disruptions, and tax revenue declines. And these economic consequences don't take into account social and emotional hardships for Oregonians dealing with smoke, evacuations, and homes lost.

So back in 2019, Governor Brown brought together leading scientists, policy experts, insurance agents, builders, and government officials to identify pressing problems and prioritize state solutions to reduce our wildfire risk.

Remember when Congress put together a task force headed by Gilbert White back in 1966 to brainstorm how to affordably and equitably address flood risk?

Brown's initiative was similar. Called the Wildfire Response Council, after nine months of work, they had put together a 110-page report. Suggestions encompassed everything from ways to fund wildfire response to how to adapt to wildfire smoke.

The 2020 fire season brought a renewed urgency for government action, and, on July 30 of 2021, Governor Brown announced the passage of a bill aimed to address the growing risk of wildfire in Oregon based on the Council's suggestions.

[\[KOIN 6, "Gov. Brown signs wildfire preparedness, modernization bill," July 30, 2021\]](#)

Governor Kate Brown: Thank you all for joining me today to celebrate the signing of Senate Bill 7-6-2.

While the bill doesn't have an identifying name like the National Flood Insurance Act of 1968, Senate Bill 762 is memorable anyway. It's a big bill. 26 pages with 66 sections. The bill lays out new utility provider regulations, emergency and smoke responses, prescribed burn requirements, and it creates a State Wildfire Programs director to oversee the implementation and to guide further response efforts.

Perhaps most importantly, the bill calls for updating Oregon's understanding of where and what is at risk of burning. And that means an accessible, applicable, and *accurate* map that can be used to guide risk mitigation efforts.

Pinpointing Risk

If we look at Oregon's current state map of wildfire risk, maintained in part by the Oregon Department of Forestry and the US Forest Service since 2018, it's clear the map is based on models that underestimate wildfire risk.

The interactive map, called the [Wildfire Risk Explorer, is available online](#), and it provides informational reports on potential hazards to structures for entire watersheds and even individual properties. Risk levels range from Very High in a deep burgundy to the lowest designation, Non-burnable or Very Low, in a pale yellow.

And if you look at the area where structures burned during the Almeda fire, it's almost all colored in pale or light yellow. The neighborhoods in urban areas? They're labeled "nonburnable development."

These risk assessments were intended to educate homeowners and community leaders and to inform professional planners about fire risk. But if they were wrong about Talent and Phoenix, could they be wrong about risk to more urban areas?

Experts have called to update what qualifies as the Wildland-Urban Interface, which is the area where wildland vegetation and human development mix. As we realized watching the Almeda fire burn through downtown Talent, wildfires can burn in areas that are much more urban than wild. So the Almeda fire upset our idea of where the boundary between wildfires and urban fires lies - a wildfire can start in a backyard and find fuel down city streets.

So to better visualize where fires can burn moving forward, the new state map is being created in partnership between the Oregon Department of Forestry and Oregon State University, a leading research university on almost-all-things wildfire science related. By June 30 of 2022, the map will be available online. A true visualization of risk for each individual property across the state. This state map of wildfire risk will be the determinant of where to allocate resources for fuels management and where to mandate community risk reduction measures across the state.

Bob Horton: Prior to 762, it was really up to each county to decide on their own how they wanted to manage risk within their own county. But the risk profile didn't doesn't know geography, and so this approach for the State of Oregon makes a lot of sense in how we approach the risk mitigation and minimum standard defensible space.

Beginning in 2023, all areas on the new map identified as at extreme or high risk of wildfire will be required to maintain defensible space, which we talked about in episode one as the area around a building where reducing and managing vegetation can greatly decrease the likelihood of a wildfire igniting the structure.

In addition to defensible space requirements, the state will require building codes, like those Greg Kleinberg first introduced back in 2016, for all areas mapped as extreme or high wildfire risk effective April of 2023. The codes still won't apply to manufactured homes, which aren't considered residential construction, but it's a huge step in the right direction.

[\[Oregon State Legislaute, "Senate Committee On Natural Resources and Wildfire Recovery," April 9, 2021\]](#)

Bob Horton: I appreciate that this bill recognizes that the current and future fire problem in Oregon is a state problem that requires a statewide strategy. And that fire suppression alone will not be adequate to protect our communities and the Wildland-Urban Interface. Our structures must be hardened. Our properties must be defensible. This bill and the amendments will accomplish that goal.

In a public hearing before the bill passed, Horton spoke to Oregon Senators about the importance of focusing on community preparedness.

[\[Oregon State Legislaute, "Senate Committee On Natural Resources and Wildfire Recovery," April 9, 2021\]](#)

Bob Horton: Now I respect my colleagues who have a position surrounding individual property owners right to choose their own risk. My challenge, though, to that notion in the wildfire context, is who is going to protect me and my property when my neighbors fail to manage or mitigate their risk, which then by extension puts my property at risk?

[\[KOIN 6, “Gov. Brown signs wildfire preparedness, modernization bill,” July 30, 2021\]](#)

Governor Kate Brown: Senate Bill 7-6-2 exemplifies the proposition that by working together, we can create a safer, stronger, and more fire resilient Oregon.

Senate Bill 762 marks an important shift toward adapting Oregon’s communities to wildfire, but it’s not perfect. The defensible space and building code requirements won’t take effect until *after* more wildfire seasons. After more homes are rebuilt, and more flammable shrubs and trees planted. And it’s not practical to require homeowners to retrofit their homes or re-landscape their yards.

And for areas like Phoenix and Talent that are designated as non-burnable on Oregon’s current risk map, a big question is whether these building codes and defensible space regulations will apply once the new map is released.

Pam Marsh: It's possible that when they do that landscape mapping, they'll find that many areas that we would think of as being urban are really in that extreme or high risk category. But, but the emphasis is really in in that WUI area.

Representative Marsh has been very involved in drafting and reviewing wildfire-related state policy - and the state is focusing on reducing risk in WUI areas. Which means the majority of funding is going into the woods, to thinning forests and creating fuel breaks. But these measures wouldn’t have stopped the urban Alameda fire.

If you look at Section 18 - the only section explicitly called “Reduction of Wildfire Risk” - The State Forestry Department is tasked to restore landscape resiliency and reduce hazardous fuel on public and private forestlands, on rangelands, and in communities near homes and critical infrastructure. To what degree each area will be prioritized remains to be seen.

\$135 million dollars (\$135.7 million), $\frac{2}{3}$ of the bill’s total funding, will go toward two years of fire suppression and forest land management. That includes purchasing more planes and hiring more firefighters, as well as more fuels reduction practices like prescribed burning and mechanical thinning.

In comparison, about 11% (11.3%) of funding, \$25 million, will go toward Community Risk Reduction, which includes education about risk and mitigation practices, enforcing defensible space requirements, and response planning and community preparedness. \$25 million may sound like a lot, but, as we found out last episode, the \$10.8 million dollars allocated to post-wildfire home hardening grants will only fund complete home hardening for less than 2,000 homes. And none of the \$25 million in the senate bill is allocated for home hardening grants or discounts...

[\[KOIN 6, “Gov. Brown signs wildfire preparedness, modernization bill,” July 30, 2021\]](#)

Governor Kate Brown: The \$220 million investment means building fire-adapted communities, improving our wildfire response, and creating healthier and more resilient landscapes.

While \$220 million is no small change, it also isn’t a long-term investment.

Pam Marsh: Also, I forgot to mention. One of the other undone things - we haven't yet identified an ongoing source of funding for the work. The state was flush last year. We were able to allocate general fund money to do this work. And now we have some federal money coming in.

But there's, you know, this is not work that's going to get resolved in a year, or two, or three years. It's going to be decades of work. So we have to figure out how to fund it on the long term, and that's yet to come.

Allocating funding isn't easy, and it's something the state will be grappling with annually unless a long-term funding source is established. But, as Marsh mentioned, there's also federal funding. In fact, [42% of the funds to fight fires in Oregon came from the federal government from 2012 through 2020](#).

Nationwide, the federal government has spent [\\$1.6 billion annually from 2000 to 2019](#) to suppress wildfires, almost four times more than it spent during the preceding 15 years (up from \$425 million). Faced with increasing costs of fire suppression and recovery across the country, the federal government is trying to find a solution to the fire problem as well.

Federal Solutions

This January, Vice President Kamala Harris announced a new federal plan to reduce wildfire risk.

[\[C-Span, "Vice President Harris and Secretary Vilsack on Wildfire Preparedness," January 21, 2022\]](#)

Vice President Kamala Harris: Secretary of Agriculture Vilsack, I want to thank you. He has put together a ten year plan that is extraordinary, that is in depth, and that meets this moment in the way that we need and in the way that is about looking at the future, being able to see what is in front of us clear-eyed and then be prepared to meet the challenge and get in front of it.

The US Department of Agriculture, which manages the Forest Service, revealed its [10-year strategy](#) entitled "Confronting the Wildfire Crisis: A Strategy for Protecting Communities and Improving Resilience in America's Forests."

The plan outlines a landscape-management approach to decrease wildfire risk by reducing fuels across the West through prescribed burning, selective logging, and dead tree and vegetation removal. These [methods can be as labor-intensive](#) as using chainsaws and rakes and hand-piling the cut debris or as large-scale as using bulldozers, wood chippers, and helicopters to cut and carry out trees or shred logs into compostable mulch.

So how much land has the forest service identified to treat in the next 10 years? 50 million acres. To get a sense for how massive [50 million acres](#) is, the entire state of Oregon is 62 million acres. An average Costco is about [three acres](#). Treating 50 million acres would be like a walking down every aisle of a Costco 15.5 million times. Some Costcos are at 40 degree inclines, and others are four hour drives from the closest town. And, because underbrush can grow back within a few years, all of these treated areas will have to be maintained.

[\[Joe Biden, Biden Candidacy Ad: “Explained: How to Build Back Better | Joe Biden For President 2020,” August 8, 2020\]](#)

President Joe Biden: Over the last century, America has defined itself by rising to meet existential challenges.

President Franklin D. Roosevelt: This great nation will endure, as it has endured.

President John F. Kennedy: This country of the United States was not built by those who waited and rested...

President Barack Obama: America is a place where all things are possible.

President Joe Biden: In order to meet the challenges of today, we can’t just build back the way things were before... we have to build back better.

To fund this work, the Infrastructure Investment and Jobs Act, or the Build Back Better Bill, passed under the Biden Administration, will be providing \$3.4 billion in initial allotments. About \$39 million will go to projects in Oregon.

[\[C-Span, “President Biden on Wildfire Readiness and Response,” September 13, 2021\]](#) These fires are blinking code Red for our nation, they’re gaining frequency and ferocity, and we know what we have to do. And it starts with our firefighters...

In addition to funding the Forest Service’s landscape management goals, the \$3.4 billion is intended to fund fire suppression as well - changes that look like increasing wages for firecrews and training states’ National Guards to fight fires.

[\[C-Span, “Vice President Harris and Secretary Vilsack on Wildfire Preparedness,” January 21, 2022\]](#)

Vice President Kamala Harris: This epidemic of wildfires is relatively new, in that there have always been wildfires in one form or another, but the frequency and the intensity and the ubiquity of wildfires, just in the last couple of years, is extraordinary and requires our federal government to see what is happening and act in real time.

When announcing the new plan, Vice President Harris reiterated what we’ve been learning: wildfires are becoming increasingly frequent and intense, they’re now impacting communities, and we need a new plan.

But if this is a new plan, it looks similar to the federal government’s 10-year fire plan introduced over two decades ago. In 2001, USFS Chief Dale Bosworth testified to Congress about the agency’s new 10-year plan to protect the public and prevent forest fires. The plan was entitled [“Managing the Impacts of Wildfire on Communities and the Environment: A Report to the President In Response to the Wildfires of 2000.”](#)

[\[C-Span, National Fire Plan Implementation, July 31, 2001\]](#)

USFS Chief Dale Bosworth: We need to focus our attention on the build up of hazardous vegetation that fuels those fires. I think we're at a very important turning point right now. The National Fire Plan really is the beginning of the solution.

Like the current 10 year strategy, the plan two decades ago was to identify which communities faced the highest risk and then to remove underbrush and thin forests to reduce that risk.

In 2001, the first year the plan was implemented, the [forest service treated 3.2 million](#) acres across the nation. In recent years, the forest service has [treated between 2-3 million acres](#) annually, which means the amount treated has remained the same.

So has the plan to reduce fuels stopped fires over these past two decades?

Labor Day Fires News Compilation

[\[KGW News, "Wildfires burning across Oregon: Top stories Sept. 8, 2020," September 8, 2020\]](#)
People across the state of Oregon forced to flee as fire moves in...

[\[CORPman SO, "Almeda Fire Southern Oregon," September 9, 2020\]](#) *Audio of Almeda fire burning in Talent, Oregon.*

[\[CBS News, "Oregon braces for a "mass fatality incident" as wildfires rage in western states," September 12, 2020\]](#) And these monstrous fires are moving so fast, they are now overwhelming fire crews, leaving much of Oregon under a state of emergency.

[\[Oregon Health Authority, "Press Briefing with Gov. Kate Brown, September 23, 2020," September 23, 2020\]](#) What developed in the days to follow was an all-encompassing fire event unlike any that Oregon has ever seen.

[\[KGW 8, "More than 800,000 acres of Oregon burned so far in historic wildfires this week," September 11, 2020\]](#) It's the worst collection of fires in Oregon in the last 120 years.

[\[Oregon Health Authority, "Press Briefing with Gov. Kate Brown, September 23, 2020," September 23, 2020\]](#) For days, our air quality was the worst in the world.

[\[ABC News, "Wildfires in Oregon drives tens of thousands from their homes," September 11, 2020\]](#) Smoke, now obscuring the sun for a thousand miles...

Fires have continued to ignite across the country with increasing frequency and intensity.

Labor Day Fires News Compilation

[\[ABC News, "Wildfires in Oregon drives tens of thousands from their homes," September 11, 2020\]](#) Three dozen fires burning in Oregon, all of them barely contained at this hour, dozens of people are missing...

[\[Oregon Health Authority, “Press Briefing with Gov. Kate Brown, September 23, 2020,” September 23, 2020\]](#) More than a million acres of our beautiful land, trees, and homes burned.

[\[KOIN News, “Phoenix rising’ from Oregon Labor Day 2020 wildfires,” February 7, 2022\]](#) What gets lost in all those numbers? The communities, the families, the homes that get wiped out...

Even if the forest service treated all 50 million acres in 10 years, what about the Alameda Fire? The fire ignited behind a home and burned through an asphalted community. It didn’t start in a wildland area. And even though fuels reduction will be prioritized based on nearby community risk, the Forest Service is inherently taking a forest-based approach to the wildfire problem.

Instead of implementing a plan that will greatly increase community preparedness and discourage continued development in the most fire-prone areas, the federal government is continuing to rely on preventing and fighting fires to keep communities safe.

But similar to the “levee effect” for flooding, promising that landscape management will substantially reduce wildfire risk can create a fall sense of security for people living in wildland-urban interface areas.

Gilbert White: We found that the effects had been, by and large, counterproductive, yes. Which was a great surprise to most of the engineers who've been working on flood control projects, and which then set in motion a whole set of of further inquiries, which were necessary to try to explain this very simple phenomenon that what people had undertaken to do in controlling, mastering floods had led to greater flood damage in the United States

But we’re all paying when communities burn. After the 2018 fire season, the federal government spent \$347 million in grants and low-interest disaster loans for Californians. And after the Alameda fire, [\\$262 million](#) (as of March 2021) federal dollars went toward wildfire disaster relief aid to help Oregonians with rent, home replacement, and other costs. As we found out for flooding in the 20th century, disaster relief aid is expensive. And as we continue to focus on managing the forest, we’re still having to pay more and more each year in disaster relief aid.

While a forest approach may be the only way to reduce the severity of fires in wildland areas and protect timber - is this forest approach the most efficient and cost-effective way to keep communities safe in this new wildfire era?

We’ve learned how important home hardening, defensible space, community planning, and insurance are to protect communities from wildfire. But the new federal wildfire plan doesn’t mention building codes, defensible space standards, or insurance solutions.

And there isn’t a federal program like the National Flood Insurance Program to provide mitigation incentives, building standards, insurance options, or community risk mapping nationwide. Preparing communities for wildfires has historically been, and continues to be, largely left up to the states. Which is why Oregon, up until 2018, didn’t have a public map of wildfire risk and is why today manufactured

homes, which fall under federal building regulations, still won't be required to be fire resistant - even if they're in a high risk area.

But is there another solution to the wildfire problem that could reduce disasters?

Beyond Current Policy

[Jamie McLeod-Skinner: I think the federal government should be recognizing the health and safety value, and creating, providing resources that incentivize better planning to begin with, and then helping cities establish those code requirements.](#)

Jamie McLeod-Skinner is now running to be Oregon's 5th District US Congressional Representative. One of her priorities, after helping lead wildfire recovery efforts in Talent, is to make sure other communities don't have to recover. But instead of focusing on reducing fuels in the backcountry, Jamie has a different idea to address communities' wildfire risk.

[Jamie McLeod-Skinner: We do it right now for renewable energy, like with wind farms, or if you know, for folks who have bought an electric vehicle, there, there are subsidies and incentives that can that can be established at the government level, that can create that carrot. So sometimes it's a carrot, sometimes it's a stick approach. But create those carrots to encourage people to invest their own funds in something that's more sustainable. And then also communities that are making investments in offsetting some of those risks. I think that's a, that's a really important role that the federal government can take.](#)

And from an economic perspective, the Government Accountability Office, a federal agency that researches and reports to Congress about how the government is functioning and how funding could be more efficiently utilized, agrees incentives for communities are important tools to increase disaster resiliency.

The Office released a [report this March](#) with recommendations for federal planning to address climate change-exacerbated disasters. The main finding? Pro-active disaster preparedness funding and leadership leads to cost savings long-term. Becoming more climate resilient includes updating infrastructure, addressing land use concerns, and constructing safer homes and businesses.

But even if we shift to a more community-focused approach to wildfire as we did for flooding over half a century ago, one of the steps that will make the most long-term difference to protect communities and reduce costs requires addressing the root cause of these worsening disasters.

[Jamie McLeod-Skinner: Right now, at the federal level, we're investing in fossil fuel, we're investing in things that are creating this problem. We need to change that and be investing in sustainable energy.](#)

Addressing the climate crisis won't affect fire severity in the next few years, which is why home hardening, defensible space, and emergency preparedness are critical to invest in, but, if we don't change course, a [2022 report by the United Nations](#) predicts highly devastating fires could increase 57% worldwide by the end of the century.

And Governor Brown warned Oregonians in May that we're already seeing the affects of increasing drought in Oregon.

[\[Oregon Office of the Governor, "Governor Brown Press Conference," May 16, 2022\]](#) Already this year I have declared drought emergencies in 15 counties. This is the most I have ever declared by this time of any year as your governor. And because of these drought conditions and forecasted weather, early indications are that a larger geographic area of Oregon is at significant risk for wildfires this season.

And we know from the past several years that we're fighting fires of a new age, made more intense by the impacts of climate change. From Chetco Bar in 2017 to the Labor Day fires of 2020, and last year's Bootleg Fire, it is a different wildfire environment.

Outro

Throughout this series, we've heard how our fire problem is exacerbated by climate change, a history of fire suppression, and a misperception of fire risk. We can't stop all fires - not by putting them out, as we learned in the first episode, or, as we just discovered, by removing fuels in the forest. And it's important to remember we also shouldn't stop all fires. They're a necessary ecological component of the landscapes we live within.

Thankfully, we've learned that we don't have to stop wildfires to keep communities safer - by changing how we build and maintain our homes in wildfire prone regions, and reducing development in the most high risk areas, we can adapt to a new era of fire ecology.

And we've heard from pioneers and leaders who are helping us do just that.

Greg Kleinberg set a groundwork for how we build homes that's helping expedite regulations statewide, and Sky Stewart is building the fire resistant homes that will keep Oregonians safer for generations to come. Bob Horton continues to help southern Oregon prepare for and put out fires and is currently researching how interventions like free equipment sharing can make fire preparedness more approachable for community members. Pam Marsh is continuing to push for recovery aid, insurance accessibility, and wildfire preparedness for her district and the entire state, and Jamie McLeod-Skinner is taking her ideas to the federal level after years in local government.

Just as we shifted our thinking away from preventing all floods toward preparing for all floods, we can shift how we think about and prepare for wildfires. But we can't wait to change any longer. Because, as we heard, wildfires like Almeda don't just burn forests - they displace communities and destabilize families.

The wildfire problem becoming an urban problem highlights fundamental issues of equity that will become increasingly relevant this century: who bears the responsibility for communities' safety as risk grows? Individuals, who may be dealing with generational societal hardships? Corporations, which largely created human-caused climate change? Our government, which is tasked with protecting the public?

Ultimately, the answers we settle on will reflect moral decisions.

We can't fight our way out of climate-related disasters. We're all in this together, and all of our individual decisions collectively affect everyone. Wildfires won't burn in every community, but insurance prices, tax dollars, and lost loved ones affect us all.

So what is the Fire Story? It's a story of reckoning with nature and societal inequity, and it's a story of human resiliency and persistence. But, most importantly, it's a story that's still being written, and it can become a story of adaptation and coexistence. Because the West is changing - and we can't chop our way out of it. Do we change with it, or do we get left in the ashes?

Before you go - thanks so much for listening. If you enjoyed these episodes and would like to learn more about the Alameda fire and the themes we've discussed in the series, visit [The Fire Story online](#) to find an interactive map, photos, sources and more.

And a big thank you to the many individuals who made this series possible - thank you to Pam Marsh, Jamie McLeod-Skinner, Greg Kleinberg, Sky Stewart, and Bob Horton; University of Oregon professors Mark Blaine and Dr. Hollie Smith; advisors Heidi Huber-Stearns, Director of the Institute for Resilient Organizations, Communities, and Environments, and Mike Coughlan, Research Associate with the same institute; my co-producer Noah Camuso; everyone who provided information and resources during the reporting; family and friends who reviewed and provided feedback throughout the process; and you, the listener, for joining me on this journey to uncover how wildfires in the West are changing, and how we need to change with them.

The Fire Story is a production of the [Center for Science Communication Research](#) at the University of Oregon's School of Journalism and Communication. This series is brought to you by the Julie and Rocky Dixon Fund for Investigative Reporting Fund, the Northwest Fire Science Consortium, and the Ecosystem Workforce Program.