

The Almeda Fire: A New Wildfire Era

Produced by Eden McCall

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Featuring |

- [Bob Horton](#), Jackson County District 3 Fire Chief
 - [Pam Marsh](#), State Representative, District 5
 - [Greg Kleinberg](#), Medford Fire & Rescue Fire Marshal
 - [Archival Audio](#)
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EP 1 | Only A Matter of Time: Oregon's First Urban Wildfire

Intro

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...

Many Oregonians will never forget Labor Day Weekend of 2020, when wildfires coursed through watersheds and toward cities.

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...

[\[ABC News, “Wildfires in Oregon drives tens of thousands from their homes,” September 11, 2020\]](#) The city of Talent, Oregon, nearly wiped off the map tonight.

While fires to the north stopped before reaching Eugene, Salem, and Portland, the Almeda fire in southern Oregon would burn down an entire city in the span of a few hours.

Almost two years after the flames, the Almeda fire’s impact in Southern Oregon remains palpable. Blackened trees, melted signs, empty lots. Looking at years of recovery still ahead, the question becomes – was this urban wildfire an unfortunate fluke, or is it indicative of what’s to come? And what does the Almeda fire teach us about how we should live in areas at risk of fire?

I’m Eden McCall, and, in this three-part series, we’re headed to Southern Oregon, to the heart of the Almeda burn, to uncover how wildfire is changing in the West - and how we need to change with it.

There are many fire stories to tell, and natural resource management and environmental impacts are two of them, but, in this series, we’re going to explore the human side of the story. Throughout these episodes, I think we’ll be reminded of individuals’ power to create change and our capacity for resiliency and adaptation.

In this first episode, we’re going back to the point of ignition to understand how wildfires like Almeda happen, and why this fire overwhelmed firefighting resources despite not surprising firefighting experts. Then, to find out whether Almeda could happen again, we’ll explore how we may be misperceiving wildfire risk and what we can do, as a community and as individuals, to live alongside fire.

This is The Fire Story.

The Fire

It was a dry, windy fall morning after a [summer of continued drought in Southern Oregon](#) - conditions that had the potential to quickly turn even a single spark into a dangerous wildfire.

[\[NewsWatch 12, “Radio calls tell the story of the Almeda Fire's first desperate hours,” September 9, 2021\]](#) We’re getting multiple reports of a grass fire. It’s going to be behind the area of 164, Almeda

drive... Battalion 1 is in route... This looks to be a grass fire. About a half acre. Call this the “Almeda,” Command. The Almeda Fire.

At [11:04 am on September 8, a fire ignited](#) behind a neighborhood on the northern end of Ashland. Only minutes after the fire started, firefighting personnel arrived. But 20 minutes later, the fire was out of control.

[[NewsWatch 12, “Radio calls tell the story of the Almeda Fire's first desperate hours.” September 9, 2021](#)] The flame front has passed us and is moving north along I-5. Structures are threatened. We’ve got at least 30 feet of flames.

Spurred by extreme winds, the fire traveled north, along a densely vegetated creek that flowed toward Medford.

[[KOIN 6 News, “Aftermath of Almeda Fire: Hundreds of homes destroyed,” September 12, 2020](#)] ...right through the heart of both Phoenix and Talent, which have a combined population of about 11,000.

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

Between Ashland and Medford, along Highway-90, parallel to I-5, are located the towns of Talent and Phoenix. They were directly in the path of the flames, and the entire city of Talent had to flee with half an hour's notice. [Two hours after the fire started, it had burned through Talent and into Phoenix.](#)

But why couldn't firefighters stop the flames? I spoke with one Fire Chief who helped fight the fire to understand why the Almeda fire couldn't be contained and to find out what ultimately stopped the blaze..

Bob Horton: Right ahead of the Almeda fire, we had already had a coordinating call, the, I believe it was the day before, with the State Fire Marshal's Office, where the outlook was really, really bleak.

Bob Horton is the Fire Chief for [District Three](#), one of about [14](#) fire districts in Jackson County. Leading up to the Almeda fire, Horton and the other fire chiefs were concerned that if a fire ignited, they might not be able to put it out.

Bob Horton: It was made very clear to us that we did not have any resources across the state of Oregon to be able to support any additional fires at the current, current stage.

Before the Almeda Fire ignited that Tuesday after Labor Day weekend, the [Beachie Creek and Lionshead fires were already burning across almost 200,000 acres](#) of the Cascade Mountain Range to the north. Planes and wildland firefighters across the country were already deployed combating these fires and fires across California, Washington, and other Western states. This meant that if a fire started, there wouldn't be any backup to help contain it.

So when Horton and the other Jackson County Fire Chiefs saw high winds and low humidity on the forecast, they worried a single spark could bring devastation to their communities.

Bob Horton: Before the Almeda fire all the fire chiefs in Jackson County Emergency recalled our fire response personnel. No fire, just risk alone.

So all of the county's firefighting resources were on high-alert, ready to respond if a fire ignited. That's why when they got a call that a grass fire had started behind a home in Ashland, they were there within minutes. For perspective, it took less time for firefighters to start dousing the flames of the Almeda fire than it can take to order an Uber or get a coffee from the drive-through. Despite the crew's rapid response, by the time firefighters arrived, the fire had already spread to encompass half an acre - which is half of a football field of fast-moving flames.

Bob Horton: Once the Almeda fire had started, the smoke was so thick that it was just impractical for me to make make it out towards the incident command post.



[\[DOT, "I-5 southbound traffic diverted due to reduced visibility early in the Almeda Fire at Exit 19 Ashland, Sept. 8, 2020," September 8, 2020\]](#)

Horton watched the cloudless, sunny day in Southern Oregon become dark with smoke that soon filled the valley. Emergency responders had to knock on doors and warn residents to evacuate as the wind carried not only flames but pieces of burning branches, shrubbery, and building materials northward.

Bob Horton: We were seeing 40-50 mile an hour winds that was pushing embers, up to three miles, they projected on that fire. So you've got the main fire front, the head of the fire that's moving, that's really visible to people that are watching, and then you have embers that are launching off that fire and landing

in various locations anywhere, you know, from hundreds of feet to three miles ahead, and those embers are likely to start new fires.

Trying to predict and respond to these “spot fires,” which are new fires that ignite outside the main perimeter by these flying embers, is like an impossible, deadly game of whack-a-mole. While firefighters try to help people evacuate and contain the front of the fire, one ember can loft into another neighborhood, land on a home’s wooden roof or in the landscaped bark mulch, and, within an hour, that entire neighborhood can be consumed by flames. And it isn’t just one or two embers to worry about - it’s a dangerous, glowing firestorm.

Bob Horton: The firefighting resources were spread so thin, so early, just on the main body of the fire, that chasing where the embers were going, or were likely to go, just became fruit- fruitless for the responders on the ground.

In addition to the challenge of trying to predict and stop spot fires, responders encountered a challenge they hadn’t expected.

[[NewsWatch 12, “Fire hydrants stopped pumping water during the Almeda Fire,” September 25, 2020](#)]
Around 11:00pm on September 8, the well literally ran dry.

As the day progressed, firefighters [lost their main tool to stop the flames](#). When buildings burned, their plumbing lines ruptured. And as thousands of homes caught fire, these burst pipes caused precious water that could fight flames to instead pool in charred structures.

So what created the conditions for this rapidly moving, uncontrolled fire? First, there was a lack of firefighting resources to create a perimeter around the fire. Second, the strong wind pushed the flames and fanned embers, causing the fire to move quickly and unpredictably. And, third, unlike previous wildfires in Oregon, the Almeda fire wasn’t burning in the wildlands - it was burning in neighborhoods. That presented new challenges for firefighters, including exposing how our water infrastructure wasn’t set up to fight large-scale urban flames.

And the impact of this dangerous combination of few resources, extreme weather, and urban setting were evident - [only 14 hours after the fire ignited, it had burned through more than 2,500 acres and destroyed over 2,500 homes as it moved north toward Medford](#).

But on the second day of the firefight - the Almeda fire didn’t reach Medford. After traveling 13 miles northward, it stopped just south of Oregon’s 6th largest city. In fact, [the majority of the fire’s movement occurred within four hours of it igniting](#). While the fire wouldn’t be considered 100% contained, meaning firefighters effectively created barriers around the fire and any spot fires, until [six days later](#), during the remaining five days the fire would only burn a few hundred more acres.

So how did firefighters stop the blaze after four hours? What changed in the firefight? It turns out, two of the three factors shifted between Tuesday afternoon and Wednesday: firefighting resources, and the wind.

First, let's talk about the firefighting resources. Because of the fire's immediate proximity to homes and potential to endanger so many lives, the Almeda fire became a top-priority fire nationwide.

Bob Horton: We were able to shuffle in immediately to the highest priority fire, so the State Fire Marshal's Office redirected resources that were otherwise going to be heading to other fires towards our location. So we were able to put together at least a couple of task forces from the Portland Multnomah area. And then a couple of teams that later on joined the firefight that were coming to Utah on their way to California that redirected to Oregon to provide us some help.

[\[Statesman Journal, "See what the Almeda Fire looks like as it threatens Medford, damages Phoenix, Talent," September 9, 2020\]](#) *Plane flying overhead in Talent, Oregon, and dropping fire retardant.*



[\[DOT, Airplane flying over Phoenix, Oregon, to drop fire retardant on the the Almeda Fire, September 8, 2020\]](#)

By the early hours of Wednesday morning, state resources arrived and began helping local crews with airplanes providing aerial support. But remember how the fire spread the most within the first four hours - yet backup arrived more than 12 hours after the fire started. So was it really this influx of support that allowed firefighters to stop the fire?

Bob Horton: The biggest thing that turned in the favor of the firefight was the change in wind direction. And that's when we were able to start to get resources to get a handle on it.

It turns out, *weather* was the deciding factor.

Bob Horton: you know, had wind not made you know, it shift to where it did or how we came here certainly the City of Medford was in jeopardy as well.

If the wind had continued on Tuesday afternoon, state and federal support were still half a day away. Medford, with a population of 80,000, could have been next to burn.

Bob Horton: Without a doubt, that fire had a path, really easy path to move along the Bear Creek Greenway, which travels from Ashland all the way through Red River. And it goes through the through the heart of Medford through central point and moves north through that direction.

So how did firefighters stop the blaze? In reality, firefighters didn't stop it. The fire wasn't fully contained until six days after it began - five days after it really stopped growing. Despite an impressive, coordinated, and immediate firefighting response, what stopped the fire from burning into Medford was a lucky shift in the winds.

Even though the fire didn't reach Medford, it still destroyed more Oregonians' homes than any other in the state's history. [Three individuals died, 10,000s of residents across the county had to flee](#) (page 23), thousands lost all of their possessions, and many couldn't save their pets. Despite burning across a fraction of the acreage of other wind-driven fires that year, the Almeda fire displaced the most people and became the most destructive wildfire in Oregon's history.

Before Almeda

But was this fire that burned through towns really surprising? According to Horton, maybe not...

Bob Horton: We don't have to imagine what mega-fires look like. We've been studying them in California for years.

Just two years before Almeda, a fire in California, driven by wind, demonstrated how dangerous wildfires can be for communities.

In November of 2018, the Camp Fire burned through the town of Paradise, California and became the state's deadliest and most destructive fire in a matter of hours. The fire started in the forested hills where winds carried the embers into town. Only [two hours after ignition](#), Paradise was on fire. [18,000 structures burned](#), and 85 civilians died. 95% of the town was destroyed.

Bob Horton: Some of our firefighters went there as part of an EMAC response to help paradise California, they saw the devastation firsthand, they came back here, we talked about it and said that could happen to us.

After the Camp Fire, Horton and other Fire Chiefs began updating evacuation plans and promoting fuels reduction to decrease the odds of a similar fire burning from the wildlands into urban areas of Jackson County.

They knew a wildfire had the potential to burn homes and force evacuations - that wasn't a surprise - but there's another factor that *did* make the Almeda fire surprising for community planners and policymakers.

While the Camp Fire started in the foothills and burned into town, remember where the Almeda fire started?

[\[NewsWatch 12, "Radio calls tell the story of the Almeda Fire's first desperate hours," September 9, 2021\]](#) It's going to be behind the area of 164, Almeda Drive. 164 Almeda Drive.

Lined with sidewalks and well-grown-in lawns, Almeda Drive is a normal suburban street.



[Eden McCall, View north from Almeda Drive, where the Almeda Fire ignited on September 8, 2020. Visible in the background are the brown tops of charred trees that burned as the fire traveled northwest toward Medford, Oregon. February 1, 2022]

Urban Wildfires

Pam Marsh: I think there's something really distinctive about this fire. This was our first example here in Oregon, of an urban based wildfire, which should be a tremendously sobering understanding for all of us who are trying to assess wildfire risk.

To understand the implications of Oregon's first urban wildfire, I spoke with Congressional Representative Pam Marsh, Vice-Chair of Oregon's Congressional Committee for Wildfire Recovery. She's been working across Jackson county to prepare for wildfire for years, and she's been witnessing how the landscape and community has become increasingly wildfire-prone for much longer.

Pam Marsh: I've been here since 1994, and in the old days, you know, the weather patterns were very predictable. And then, at some point, the markers just stopped being predictable. And then we had the wildfire. And there are multiple reasons for wildfires, but there's no question that increasing heat and persistent drought and the dry ground was absolutely an exacerbating factor there.

In 1994, when Marsh first moved to Ashland, temperatures on September 8 reached 91.0 °F. When the Alameda fire ignited on September 8, 2020? It was almost 10 degrees hotter (100.9 °F).

Since the beginning of the 20th century, average temperatures have [risen 2.6 °F in Ashland](#), and snowfall has decreased, both factors that make wildfires more frequent and intense.

These factors, combined with high winds that fanned flames in 2020, led wildfires to set new records for acreage burned, as well as homes destroyed, across the West. Drier than the more northern and western regions of the state though, people in Southern Oregon have been living with wildfire for centuries, but the key issue is that fires in Southern Oregon and other Western states are now burning *within* communities throughout the year.

[\[CBS Colorado News, "Wildfires Near Boulder, Colorado Force Thousands To Evacuate," December 30, 2021\]](#) Tonight, a life threatening situation near Boulder, Colorado, where fires are forcing thousands to evacuate.

[\[NBC News, "Dangerous Wildfires Tear Through Colorado Neighborhoods, December 31, 2021\]](#) Those devastating wildfires in Colorado that destroyed communities in seconds, as many as one thousand homes burned leaving families homeless to start 2022.

This one was right in, you know, your neighborhood Target, your neighborhood Costco. So this was a fast moving urban and suburban fire.

[\[NBC News, "Dangerous Wildfires Tear Through Colorado Neighborhoods, December 31, 2021\]](#) The Marshall fire posed to be the most destructive blaze in Colorado for property loss.

[\[KPIX News, "Rare Winter Wildfire Burns Near Bixby Bridge on Big Sur Coast," January 22, 2022\]](#): A bit of an update on the rare winter wildfire burning on the Big Sur Coastline... Wildfires are unusual this time of year.

Pam Marsh: What we learned from a December wildfire in Colorado and, most recently, a January wildfire in Big Sur, is that the risk is extreme, right? We are just seeing fire behavior that we've never anticipated before. We've never thought we would have wildfires in the middle of winter. We've never thought we would have wildfires that course through an urban part of the community.



[Eden McCall, A shrub burned during the Almeda Fire less than twenty feet from homes in an Ashland neighborhood, February 1, 2022]

Aware of the increasing risk of wildfire in her District, Marsh had been working in Jackson County to reduce her community's risk by removing underbrush, creating emergency plans, and encouraging individual readiness; but despite years planning and preparing for wildfire across Jackson county, the Almeda fire wasn't a fire she expected, and it wasn't a fire her community was prepared for.

Pam Marsh: Our expectation has always been, here in, here in southern Oregon and across the state, that a wildfire will start up in the forest, and that our most vulnerable area would be that WUI area, the interface between where development occurs and where the forest begins.

[Wildland Urban Interface, or WUI](#), denotes where wilderness and development overlap - or interface. Wildfires have historically threatened homes in these areas, like in rural communities in the forest or suburbs in the outer foothills of cities.

Pam Marsh: And we've done a lot of work in some of these communities to really stabilize the forest in our WUIS.

The City of Ashland had been removing fuels in surrounding forested areas to try to reduce the potential for fire to spread from the Wildland-Urban Interface into the city, but this tactic assumed a fire would start in the forest...

Pam Marsh: The Almeda fire was not that kind of fire. It did not burn in the WUI. It did not start in the forest. It just burned right up the center of an asphalted community.

The fire didn't burn on even an acre of national forest, state forest, or private timberland, instead...

Pam Marsh: It really started in an urban area, and then spread, aided by habitat along a creek side that provided fuel up through that urban core.

Bear Creek greenway meanders through the towns of Talent and Phoenix as it connects Ashland to Medford with 20 miles of scenic trails and interconnected parks. The pathways, shaded by a variety of trees and often lined with brush and blackberries along the river, provided access to nature for those in the urban area. But even this small outcropping of managed vegetation, while not wildland, proved enough for the wildfire to travel 13 miles from Ashland to the edge of Medford.



[Eden McCall, A map of the Bear Creek Greenway located in the Ashland Dog Park, only a few blocks away from where the Almeda fire ignited on September 8, 2020. February 1, 2022]

The Almeda fire upended long-held assumptions about where wildfires can start and what they can burn in the West. If a fire can start in a suburban neighborhood and can find fuel in parks and neighborhoods, what does that mean for urban communities across Oregon?

Pam Marsh: The lesson of 2020 is that the risk is much broader and much deeper than we had realized before.

Removing fuels in the forests and creating fuel breaks surrounding communities didn't stop the Alameda fire - and it may not stop the next wind-driven urban wildfire - but that doesn't mean there aren't ways to stop wildfires from destroying communities; we may just need to approach the wildfire problem differently.

Protecting Homes

Pam Marsh: I think there is a conversation about empowering homeowners. I mean we're looking at this huge risk, we need to understand the risk, it's scary as hell. And there are things that we can do individually to reduce our own risk.

Marsh is talking about *community preparedness*. Instead of needing to suppress an unstoppable wildfire to save communities, what if neighborhoods didn't burn?

Bob Horton: The literature is very clear that home hardening is the greatest reduction in someone the chance that someone's going to lose their home in a fire, and defensible space is the sort of next best factor that you can do to reduce risk on your property. None of it eliminates your risk. Nothing gives you 100% certainty that your house will survive a fire. But that's why we, you know, we really define it as defensible space is you give the firefighters the greatest chance to defend your property, or for the fire to not engage your house or property when it's in its path.

Essentially, even though firefighters may not be able to keep wind-driven fires out of neighborhoods, that doesn't mean neighborhoods have to burn.

Horton mentioned two terms that are heard with increasing frequency in the fire world: home hardening and defensible space.

Home hardening and defensible space, unlike fire suppression, are actions that individuals can take to make their homes safer well before a fire even occurs.

[Home hardening](#) means constructing, or retrofitting, a home with ignition-resistant materials. These materials include ember and flame-resistant vents, multi-paned windows, and fire-rated roofs like metal or asphalt.

[Defensible space](#) refers to creating a less-flammable area surrounding the home - like removing mulch, plants, and firewood piles adjacent to the structure and progressively thinning underbrush and distancing trees toward the edge of the yard. These measures can have a big impact on whether a home survives or not.

[United States Forest Service \(USFS\) research from the late 1990s and early 2000s](#) indicated that homes can survive extreme wildfires without firefighters' protection just by changing how we build and maintain them.

Pam Marsh: That may be the piece that keeps your house from going up in flames.

But if researchers and firefighters have known home hardening and defensible space saves homes for more than 20 years, why didn't this knowledge translate to improving fire resiliency for neighborhoods in Talent and Phoenix?

Take a drive through your local suburban neighborhood constructed in the late 1900s, and you'll get a sense for what some of the homes that burned in the Almeda fire looked like. Big front yards with decorative, well-grown-in bushes and tall, rooty trees, added-on wooden decks and freshly mulched garden beds.

Not characteristics of fire-resilient homes.

Risk Perception

Bob Horton: People are in general, poor, poor predictors of what their their risk is and the risk on their property.

In addition to leading fire preparedness and response as a Fire Chief, Horton also recently finished a master's degree in public policy at Oregon State University and is conducting quantitative research into how his community is responding to interventions like equipment sharing to learn what factors influence individuals' risk perception and prompt actual risk reduction.

Bob Horton: One of the foundational factors that elevated somebody's awareness of risk is the risk saliency, which is associated with proximity of a nearby fire.

Essentially, it's human nature *not* to think a fire will burn in our neighborhood - until it does. So even though experts have known that home hardening and defensible space increases home survival rates, it's been hard to convince people that fire was a very real possibility. And because wildfires hadn't coursed through urban areas of Oregon, as Marsh mentioned, *wildfire* seemed like a *wildland* problem.

Bob Horton: So when, you know, a community has a fire, then there's an awareness, you know, it just sort of seems intuitive that people are now aware that, "Yes, fire actually does happen. I just watched it happen, you know, nearby, and now I'm concerned." Some of the literature says, though, or speaks to, that wanes over, over time.

Remember how Horton said that the risk saliency, or an individual's awareness of risk, correlates with the proximity of a fire? Well, it also correlates with *when* the last nearby fire occurred...

Bob Horton: Five years removed from a fire, the people sort of now are back to, you know, not seeing the risk being as high.

While the impact on thousands of individuals displaced or otherwise directly affected by the Almeda fire can't be overstated, for those who just experienced the smoke, or even evacuations, fire may soon seem like less of a risk. And for individuals who purchase homes in rebuilt neighborhoods, they won't have experienced the impact of the Almeda wildfire at all. So five years from now, even though the Almeda

fire burned through entire neighborhoods, and burned very close to Medford, we may start to feel like fire isn't as much of a risk as we do right now.

What that means is spring yard care and fall gutter cleaning may get postponed and a focus on home hardening may diminish over time - even though the risk doesn't decrease.

Bob Horton: The risk's the same the entire time, you know, we we're at extreme risk, always, the the burn probability is the same, but people's perception of that risk, right varies based on some of these experiences. So, you know, it's, it's key to find paths to success that are relatively easy. You know, behavioral scientists have started to study various interventions. And these types of interventions are really what informed Fire District Three's position and how we were going to approach wildfire risk reduction in areas of our community.

That approach is to reduce as many barriers as possible that might prevent homeowners or renters from maintaining defensible space, so even if we naturally misperceive risk, it's easy enough to mitigate and socially-ingrained enough to act, that we reduce our risk anyway.

Bob Horton: For example, we put together you know, really simple access points to equipment sharing, and we have private partnerships with some of our disposal companies to help manage that fuel load, so we'll remove a very challenging and difficult step for you.

Managing our chipper days, is the newest iteration of that. You know, the behavioral science behind that is it starts to create social norms. When your neighbor's got a pile of wood out and your neighbor on the other side has a pile out, you start to thinking that maybe you should get in on that program and be a good steward of your neighborhood and make a contribution.

So Horton is hard at work trying to make defensible space easier to achieve with equipment sharing and community yard maintenance days. They'll drop trailers off to load branches and pine needles and will dump them for community members. They'll even visit homes and offer personal guidance fire-resistant plants and home materials.

These community programs remove mental and physical barriers for individuals to prepare for wildfires, but they're still *optional* risk mitigation programs which means they rely on individuals perceiving fire as a risk - and, as Horton said, we're poor risk predictors. We forget that fire has occurred, and we naturally take for granted how many close calls we've had...

And we've actually had more close calls than many in Ashland and Medford probably remember. Representative Marsh pointed out how the Almeda fire was the first time a wildfire coursed through urban areas of Oregon, but long before the Almeda fire destroyed more than 2,500 homes last year, a fire in 2010 ignited on the outskirts of Ashland.

And this close-call fire would spur one Fire Marshal to sound the alarm that a wildfire like Almeda was not only possible - but that we needed a new approach altogether if we wanted to keep Oregonians safe for good.

So I drove south, to the hillsides of Medford, to hear the full story.

As it turns out, it may just take *one catalyzing fire* and *one persistent person* to ensure we all live safer, without us even knowing it.

Close Call Fires

Greg Kleinberg: In 2010 the Oak Knoll Fire burned in Ashland, and that burned 11 homes, I think, in just a few hours.

Greg Kleinberg had worked in Medford Fire-Rescue for nine years when the Oak Knoll Fire ignited. As the fire burned through a neighborhood in the foothills, he was reminded how a wildfire, spurred by wind, could endanger homes.



[Eden McCall, Portrait of Greg Kleinberg, February 1, 2022]

And the Oak Knoll fire wasn't the first wildfire he saw endanger local communities. It turns out, the Alameda fire wasn't the first time a wildfire had burned along Bear Creek.

Greg Kleinberg: Over the years, you know, we had several fires along the Bear Creek Greenway. And in 2009, we had the Deer Ridge Fire. And that was just right up here. It actually started a few blocks away from here.

Kleinberg and I are walking through his neighborhood in the wildfire-prone foothills of Medford.

Eden McCall: So do you live around this neighborhood?

Greg Kleinberg: I do. I live up the hill here. Probably about a mile from here.

It's a cloudless, windy winter afternoon in Southern Oregon, but I imagine the neighborhood 13 years ago as the Deer Ridge wildfire burned just over the ridge - smoke plumes choking the air and houses quickly evacuated.





[Eden McCall, A view of Kleinberg's [FireWise neighborhood](#) in the foothills of Medford. FireWise communities encourage fire preparation among neighborhoods, February 1, 2022]

Greg Kleinberg: And within a couple of hours it burned 633 acres. And we were really fortunate that there was a stiff wind but it was all blowing away from the homes here. We didn't lose any homes, the firefighters did a great job of stopping it, but that was one of my first wake up calls to how dangerous it is here in the summer and how, you know, we could hurt people and lose a lot of homes.

So Oregon's first urban wildfire could have occurred a decade ago, but, thanks to wind direction, devastation here was avoided.

Greg Kleinberg: And so that year we started a Wildland-Urban Interface Home Evaluation Program where we offered free advice to homeowners. We'd come walk around their home and tell them what they should do to make their home safer. And so we did that, and then, in 2010, the Oak Knoll Fire burned in Ashland.

Firefighters were again able to stop the wildfire before entire neighborhoods burned, but, six years after the fire, Kleinberg realized more than just homes were at risk.

Greg Kleinberg: And that's the one where our battalion chief was right in the thick of the smoke, and he ended up dying in 2016 because of that fire.

Sacrificing his safety to save roughly 100 homes from the Oak Knoll Fire, Mark James Burns suffered lung damage from smoke inhalation. [After four decades of firefighting service in Jackson County, Burns passed away at 62 years old.](#)

Greg Kleinberg: When our battalion chief died, when Mark Burns died, I just felt like I gotta do something to protect firefighters, to protect the community, more.

In 2016, Kleinberg was the city's fire marshal. His job was to reduce the risk of fire by providing prevention education, conducting inspections and code enforcement activities, and promoting fire preparedness. And he had already helped pioneer the Medford Fire Department's free Wildfire Home Evaluation Program back in 2009. The goal was to help community members understand their fire risk and find actionable ways to reduce the risk.

Greg Kleinberg: We actually had certain Saturdays in the late spring that we would send people out on overtime to go talk to people and, unfortunately, not too many people signed up for it. We also had, like, townhall meetings we set up. And we would only get, you know, 10 or 12 people to come. And we advertised it really well. So I think, you know, the public... sometimes just, they didn't consider that a big threat.

While Kleinberg knew how close the Deer Ridge Fire and Oak Knoll Fire came to being large, uncontrollable urban blazes, the general public saw a different image - they saw firefighters succeeding at putting out the flames. Because the public didn't understand the risk, and the voluntary options weren't succeeding like he'd hoped, Kleinberg sought another solution that would save homes and protect firefighters.

Building Codes

Greg Kleinberg: It was kind of interesting, because I get this email that said the the Building Codes Division is seeking input for code change proposals.

[Residential codes](#) regulate how homes are built statewide. The codes are updated annually, and they apply to new construction or for certain repairs or reconstruction. They cover everything from the minimum space between a toilet and sink to the shortest height for a ceiling. If you've ever been in a two-story home and noticed lights above stair steps, that's thanks to these codes (Section 303.7). And the codes include sections on building for wind, earthquake, snow, and house fires... but not wildfires ([R301.2 \(Climatic and Geographic Design Criteria\)](#)).

Greg Kleinberg: I looked at what was in the existing residential code. And I'm like, "This is crazy. There's nothing in there."

Greg Kleinberg: Now, traditionally, the the fire department really doesn't get into the building codes, but that's the only way we could build new homes safer is to change that code. I scrambled to submit a code proposal, and I got it in on the deadline.

The draft Kleinberg submitted to the Building Codes Division was modeled after wildfire building codes California passed eight years prior. The [California codes](#) mandated that new homes in high-risk areas meet ignition-resistant standards, like being built with finer-mesh vents, ignition-resistant siding and decking, and without wooden shingle or shake roofing.

Kleinberg: You know, here's an example. See these eaves right here. ...

Kleinberg points toward the roof of one two story home; the eaves are enclosed, meaning there's no place for embers to get caught, which is a common way homes ignite. The codes he submitted would require enclosed eaves like these.

And these codes make a big difference in home survival rates. Remember how the Camp Fire burned over 18,000 structures in Paradise, California, in 2018? Well, an [analysis of fire data and property records after the Camp Fire found that 18% of single-family homes built prior to 2008 escaped damage, but 51% built after the codes passed in 2008 survived unscathed](#). By requiring ignition resistant construction, the codes kept more than twice as many homes from burning.

With a background in general contracting in California, Kleinberg had experience with building codes. And having been a fire inspector and investigator before becoming a fire marshal, he had seen many times how certain materials made a home more likely to ignite and burn.

[Code Change Committee Meeting, R324, February 8, 2017]

Greg Kleinberg: Good morning committee members, my name is Greg Kleinberg. I'm deputy chief and fire marshal for Medford Fire & Rescue, and I'm the person that proposed these amendments to R324.

Back in early 2017, with scientific studies and lists of sample wildfire-resistant products on-hand, Kleinberg testified in front of the Building Code Division's Code Change Committee to explain how updating the building codes would keep communities safer across the state.

[Code Change Committee Meeting, R324, April 5, 2017]

Greg Kleinberg: The average homeowner trusts that building codes and home builders have taken adequate measures to mitigate hazards. They do not realize that whole neighborhoods can quickly be destroyed in a domino effect as fire jumps from house to house. We have mitigation requirements for flooding, freezing, earthquake, severe wind, snow loading, etc. in Oregon Residential Speciality Code, yet no significant measures to protect homes from wildfires.

Kleinberg explained to the committee how our building codes were out of date and that, paired with the growing risk of wildfire in Oregon, meant this change needed to happen *now* if we wanted to prevent larger tragedies in the future.

But that February testimony would become the beginning of a three-year battle to get the code update implemented - during which time, homes would continue to be built in Southern Oregon just as likely to burn if conditions aligned and a big fire ignited.

Greg Kleinberg: If you look at a lot of the building and fire codes, a lot of them are, they are the result of some bigger bad tragedy that happened.

While Kleinberg knew a wildfire like Almeda could occur, others still didn't think Oregon was really at risk - and that meant they didn't see a need to update the building codes and require home hardening.

[Code Change Committee Meeting, R324, April 5, 2017]

Howard Asch: Howard Asch, Oregon Homebuilders Association.

Committee Chair: Thanks.

Howard Asch: Of all the issues that have come as potential code changes for the committee, this one has created the most serious firestorm among the builders.

The Oregon Homebuilders Association is part of a national lobbying group that aims to promote [“the health of the building industry.”](#)

Greg Kleinberg: The Oregon Home Builders Association had a representative at every meeting opposing it.

[Code Change Committee Meeting, R324, April 5, 2017]

Howard Asch: It involves considerable, substantial cost to our builders' customers. This is not a life safety issue. People are evacuated when there's a wildfire. This is simply a property issue. A lot of these houses that we're talking about in the wildland areas are second homes. It's not like someone is losing all the family pictures and all the family history when the house burns. You should have received a letter that we received from Pahlisch Homes as an example from one of the builders who reviewed this proposal. They indicate that their information shows that it would cost about \$12,500 per house.

Greg Kleinberg: And they were saying that this is going to make homes unaffordable. It costs too much. It's, it's not needed. The science doesn't prove that this works.

[Code Change Committee Meeting, R324, April 5, 2017]

Greg Kleinberg: The cost for this for a 1,200 square foot home would be pretty unsubstantial. For a thirty-year mortgage, by the time you take the interest reduction off it would be about \$3.65 per month after tax savings, and, if there are any homeowners insurance incentives, it would drop even more.

[Headwaters Economics](#), a leading non-profit research group that studies wildfires' impact on communities and how land use and planning can reduce wildfire risk, [compared the price to construct a traditional home](#) in Montana to a wildfire-resistant one and found that it could actually be about 2% cheaper to build fire-resistant.

[Code Change Committee Meeting, R324, April 5, 2017]

Greg Kleinberg: So I don't agree what the estimate was on the last meeting, and there's no details on it. And I don't agree that it would be cost prohibitive.

Despite opposition from the Homebuilders Association, Kleinberg received support from surprising places.

[Code Change Committee Meeting, R324, April 5, 2017]

Paul Mackie: Paul Mackie, Western Red Cedar Lumber Association, representing over 29 manufacturers, primary and secondary manufacturers of Western Red Cedar products, including siding, decking, trim boards. I'm also known as Mr. Cedar in the timber industry. I am here to testify in favor of this proposal. It has worked very well in California. Thank you.

Committee Chair: Thank you. No questions.

Frank Stewart: My name is Frank Stewart. I am the technical support manager for Western Wood Products Association. We're based in Portland. We wanted to testify in support of this amendment.

Jeff Fantozzi: Hi, I am Jeff Fantozzi. President of the Pacific Lumber Inspection Bureau. We represent lumber manufacturers. Many of those make siding or decking products that would be affected by this. I am here to speak in support of the Chief's proposal.

Several representatives from the timber industry testified in support of Kleinberg's codes, explaining to the committee that the codes were a necessary health and safety improvement, even if reducing wood decks and roof shingles could affect their industry.

So by the end of that first meeting in February, after a day of testimonies, the committee called for a task force with stakeholders to address the Homebuilder Association's concerns about cost and feasibility. So the Task Force met, made a few revisions, and returned to the committee in April of that year.

One compromise they agreed on was to make the update optional. Instead of being required state-wide in areas deemed high-risk, the code update would be available for cities or counties to adopt themselves.

[Code Change Committee Meeting, R324, April 5, 2017]

Greg Kleinberg: This would allow local jurisdictions that have designated hazardous wildfire areas to adopt mitigation measures that specifically apply to those areas to reduce the conflagration potential. This will lead to lives being saved, injuries prevented, and property preserved.

[Code Change Committee Meeting, R324, April 5, 2017]

Greg Kleinberg: In summary, I would ask for your support on this proposed amendment to give jurisdictions that live under a wildfire threat each year a better chance to protect their communities.

[Code Change Committee Meeting, R324, April 5, 2017]

Committee Chair: All in favor of uh the motion to accept the Appendix signify by saying "I."

Multiple I's.

Committee Chair: Motion passes, and we'll accept the Appendix, and thanks for all your hard work on that.

Despite continued opposition from the Home Builder Association, that April, the committee recommended the now-optional version.

Greg Kleinberg: And then went before the Structures Board, and it was an overwhelming vote to move that on for adoption.

And so, in May of 2017, all that was left was for the appendix to be approved by the Director of the Codes Division, Mark Long.

Greg Kleinberg: And then, a week later, there was an agenda that went out that said it's denied.

But why was the decision going to be no? Kleinberg and other officials had shown how these codes worked in California, provided research that wildfires were an increasing threat, and even compromised to allow the codes to be optional.

It turns out, Mark Long, the Director of the Codes Division who denied the update? He would go on to become the CEO of the Oregon Homebuilders Association in 2020.

Greg Kleinberg: I just felt like, you know, the decision was always going to be no, no matter what we did.

Instead of fighting a wildfire on the front lines, Kleinberg was fighting to protect Oregonians' homes in the backrooms of office buildings and through long email chains. And it seemed almost as hard to create policy change as it was to put out a fire. But these codes would keep communities safe for generations to come, so Kleinberg didn't give up. Instead, he reached out to someone actively working to increase wildfire awareness and preparedness, Representative Marsh...

Pam Marsh: Several years ago, I was approached by the City of Medford, at that time, the fire marshal there, who was working with the State Building Code Office to try to get an optional, more intensive, fire resistant building code for new residential construction. And, frankly, he ran into some politics within the building code office.

Greg Kleinberg: And some pressure from above came down. And so the building codes director, pretty much said that he has been told that they will pass something.

After a letter to the Governor and testimony from Marsh, eventually, [on January 24, 2019, the State amended the building codes](#) to allow cities and counties to mandate home hardening in high-risk areas.

Greg Kleinberg: It was, it was just a great win at that point. It was really neat to see that go in. This whole process is probably one of the hardest things I've done, just to continue to knock on the door and continue to fight and, and face the opposition, like we did.

Once it was enacted, Kleinberg worked with the Medford City Council to adopt the codes locally. At first, homebuilders were skeptical and thought that the changes would increase costs and hurt business.

Greg Kleinberg: I think once we showed them how easy it was and how many products are available. It was at that last meeting with a builders that one of them stood up and said, "You know, I'm ready to support this." And he was the most outspoken critic. He was a prominent homebuilder here.

Kleinberg's years of persistence succeeded: in October of 2019, Medford became the first city in Oregon to adopt R324.7, and, in October of 2021, Ashland would also adopt the codes.

Looking Ahead

What started out as an emailed recommendation became the standard for building in high wildfire-risk areas of Oregon, like Kleinberg's neighborhood in the hills where the Deer Ridge Fire burned. Now, in Ashland and Medford, ignition-resistant building materials are required when renovating roofs or building new subdivisions.

These codes ensure we prepare for wildfires, and, unlike voluntary programs, they don't rely on our fallable risk perception. But Kleinberg thinks the current codes, even if they're adopted by jurisdictions across the state, are really only the first step toward changing how we live in areas at risk of fire.

Greg Kleinberg: Over the years, we've continued to build out further into the hillsides and the interface areas without really planning for extra evacuation routes. And because we never saw the need for that. We've always thought this won't happen to us. And it could happen here. It could absolutely happen.

Preparing for wildfire requires reshaping not just how we build individual homes, but also how we plan entire communities, whether they're deep in the woods, on the outskirts of town, or even in urban areas alongside scenic creekways. While many neighborhoods at risk are already built, and it's impractical to change street layouts, increase lot sizes, and retrofit entire blocks of houses, it's not impossible to maintain defensible space and build new homes differently.

Outro

Whether we're aware of the risk or not, wildfires are becoming increasingly frequent and intense across the Western United States. The Almeda fire may have been Oregon's first urban wildfire, but it won't be the last. While we can't control wildfires, we can control how we plan our communities and build and maintain our homes.

In the next episode, we're going to follow the story past the flames and into the present to uncover how communities are affected when we aren't prepared for wildfires. We'll learn about the challenges of rebuilding after the Almeda wildfire - from city planning delays and debris removal to insurance difficulties and equity issues - and how these challenges are affecting some Oregonians more than others. As we tour one recently-rebuilt home, we'll discover what fire resistance looks like and we'll learn steps we can all take to keep our homes safer. However, we'll also discover that, despite Kleinberg's efforts, many houses have been built back, but not any more resistant to embers from a wind-driven fire, than before. What will it take to keep Oregonians safe from the next urban fire?

All that is coming up next on The Fire Story.

If you enjoyed the first episode in this three part series and would like to learn more about the Almeda fire and wildfire in the West, visit [The Fire Story online](#) to find an interactive map, photos, sources and more.

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