

FOREST FIRES, from page 4

contained Aug. 31.

As Michael Krochta, Bark's Forest Watch coordinator and biologist, pointed out when he took Street Roots to survey the site, the only area that burned was the area that had been thinned.

While the area had not been thinned specifically for fuels reduction, according to the Forest Service, it met a number of the criteria for a fuels reduction treatment.

As we walked up a steep slope and around the perimeter of the fire, the ground beneath our feet was burned down to the mineral soil, black and soft. Logging slash left behind to prevent erosion and provide nutrients to the soil had acted as fuel.

Slash is the piles of twigs, needles and premature trees that are left behind on the ground after a logging project.

Just two months after the fire's containment, vine maple and ferns were already popping up at the base of trees, and the sounds of woodpeckers and songbirds could be heard overhead.

Wide spaces between the young, homogenous trees that were not removed during the thin let plenty of sunlight through to bathe a slope covered with the barren stumps of many older, larger trees.

"Unlogged forests that have lots of big trees, wood on the ground and a closed canopy – the humidity is a lot higher. All these things factor into creating a forest stand that's more resilient to the effects of forest fires," Krochta said, as we trudged up the hill.

Jackie Groce, a U.S. Forest Service ranger in that district, also took interest in the Jazz Fire site. She led a team of experts, including soil scientists, foresters, wildlife biologists, silviculturists and fuels planners, on a field trip to take a closer look at what had happened.

She said the reason the fire stopped abruptly at the edges of the thinned area was because that's where firefighters had contained it.

"We chose to construct a handline in a particular area, and that's what stopped the fire; it wasn't a change in vegetation," she said.

The fire had also been contained on two sides from roads that served as fire breaks and access points for firefighters.

Groce said her team came to the conclusion that "the treatment was really effective in keeping a crown fire from happening," meaning the fire stayed close to the ground and not in the canopy, aside from in a couple small areas. This was, in part, because during the thinning project, ladder fuel – fuel that would help the fire move upward – had been removed. What they did learn, she said, was that there were opportunities to manage the slash left behind differently. In the future, she said, the Forest Service may find ways to move the slash away from roads from which firefighters are trying to contain the fire.

She said it's about finding a balance between too much slash, which can pose a fire risk, and too little, which can allow for erosion and poor soil quality.

"Our sense was that we really wouldn't do much dramatically different," she said about her team of experts' conclusion.

Both sides of the thinning debate frequently point to one-off incidents, such as what happened with the Jazz Fire, to show



PHOTO BY ARKADY BROWN

Bark Community Organizer Courtney Rae and Bark Forest Watch Coordinator Michael Krochta present a photo petition to U.S. Rep. Kurt Schrader's (D-Ore.) office in Oregon City, urging him to oppose the Resilient Federal Forests Act. The next day, Schrader voted in favor of the bill.

how thinning either is or is not effective.

"You have to be careful about anecdotal information," warned Dominick DellaSala, a renowned fire ecologist and chief scientist at the Geos Institute. "Wind speed can change, humidity levels can change, and if you don't account for all those factors, you could conclude either way. Either the thinning helped, or the thinning didn't help, depending on what was going on with the fire climate."

The Geos Institute, based in Ashland, works with government agencies and landowners in applying science to climate-change planning and forest management. DellaSala has published peer-reviewed journal articles on fire ecology and climate change and has been on the faculties of Oregon State University and Southern Oregon University.

He said he develops his conclusions based on peer-reviewed science.

"The studies that have been done on this, and there have been many of them, show that if you do thinning in an appropriate way and under certain conditions, you can lower fire intensity."

However, he continued, that comes with a "long list of caveats."

For one, you must have average fire weather, without high winds, with lower temperatures and without low humidity – all factors that are exacerbated by climate change, potentially making thinning less effective.

"If you have average weather conditions, if you've done thinning so that you don't take out too many of the big, fire resistant, overstory of trees, and you don't open up the canopy too much, you can actually lower fire intensity. *And*, you have to follow it with prescribed fire," he said. "And, you have to keep going back, because the vegetation keeps growing back. And so if you don't

continue to thin, because the vegetation is going to grow back rapidly when you open up the canopy to more sunlight, you can raise your fire hazards."

He said that even if you put all the right management techniques in place, when you combine it with extreme fire weather, it doesn't make much of a difference.

"We're headed into a new fire climate era, and we cannot thin or log our way out of it," DellaSala said.

Bell suggests policymakers and forest managers are asking the wrong question: They shouldn't be asking how to stop fires, which are good for the forest and difficult to predict or manage. They should be asking how to protect homes.

For one, DellaSala said, we should stop building in what he calls fire sheds.

"We don't build on volcanoes, but we build in floodplains and burn plains," he said.

He said Congress should spend its limited fire budget to work with homeowners to do defensible space management.

"The studies that are out there show that when you thin the vegetation around a radius of 50 to 64 feet, in that range, if you thin around the home, you build with fire-resistant materials, you make sure there are no branches touching the roof, your gutters are screened, your vents are screened, you don't have any firewood on your deck, you've got about a 90 percent chance of that home surviving a wildfire," he said. "Nothing you do outside that circle of influence changes the odds to that home."

Why wildfires have increased

Politicians and loggers often blame environmental laws for overgrown public forests ripe for severe fires, but there are many other contributing factors.

"We now have the phenomenon of a human-caused fire season on top of a changing climate," DellaSala said. "Those two variables are driving most of the change that we're seeing in wildfire activity today."

In a peer-reviewed paper published one year ago, scientists at Columbia University and the University of Idaho found that since the 1970s, human-caused climate change has decreased moisture in forests across the Western United States. They concluded that climate change, in addition to fire suppression, human settlement and natural climate variability, was responsible for increased fire activity in recent decades.

According to another paper, published earlier this year, researchers at the University of Colorado found that we're now living in an age where 84 percent of wildfires are human caused. This includes fires ignited by cigarette butts, campfires, fireworks, target shooting and other human activities.

The human-caused fire season lasts two months longer than the lightning-caused fire season, DellaSala said.

In another study a decade ago, Peter Morrison, a former Forest Service employee, forest ecologist and founding director of Pacific Biodiversity Institute, determined 88 percent of wildfires were human caused.

Of those human-caused fires, Morrison found that 95 percent occurred within a half-mile of a road.

"The most effective thing the Forest Service could be doing (to prevent fires) is to limit road construction and decommission roads," Bark's Krochta said.

Ironically, at the site of the Jazz Fire in Mt. Hood National Forest, the roads that served as a fire break and allowed firefighters to effectively battle the blaze