

NEWS

BY TAYLOR GRIGGS

FIRE SEASON

Fire professionals provide insight and advice about the summer fire season

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Summer 2017 in Oregon was hazy and smoky. People wearing not-always-helpful surgical masks were a common sight, and climate change worked with unique conditions to create a fire season that suffocated the air quality in Lane County.

“There were fires burning all over Canada, Montana, Washington. We basically had the whole Pacific Northwest on fire,” says Amanda Stamper, fire program manager for Oregon and Washington and chair of the Oregon Prescribed Fire Council. “Especially when we had fires that were burning on the west side of the Cascades, that brought them so much closer to the communities of western Oregon.”

This was echoed by James Johnston, a research associate at Oregon State University’s College of Forestry. “The 2017 fire season was particularly uncomfortable for folks in major urban areas in western Oregon, in part because there were a number of fires near urban areas,” he says. “But more importantly, there was an unusually strong high pressure system over the central and eastern part of the state that pushed a lot of smoke west into Portland and the Willamette Valley.”

During the summer, Johnston says, moist westerly winds from the Pacific Ocean are blocked by this high-pressure system.

“When there’s a ridge of high pressure over Oregon, smoke can linger because it doesn’t get pushed east by winds from the ocean,” he says. “The major point is that the smoke we had in the valley last year was a function of a lot of fires burning in western Oregon, but more importantly it was a function of unusual weather conditions. These weather conditions will be repeated at some point, but they won’t happen every year.”

You might think dry environments are better for fire, but Oregon’s wet winters can also create prime fire conditions for the summer because a wet winter creates a lot of vegetation, meaning there are more fuels that fires can take hold of. This is especially true when the weather changes drastically from winter to summer, rapidly drying the fuel.

This happened in winter 2017, when there was a lot of moisture from rain and snow that affected the amount of fuels — vegetation like grasses, branches and twigs —

available to burn. That summer, the weather took an abnormally hot turn.

These dramatic switches in temperature can be attributed to climate change leading to those warmer summers, Stamper says. She says that when overall temperature increases, precipitation has to keep up in order to counteract fires.

“For every one degree Celsius temperature increase, you need 15 percent more precipitation to offset the impacts on wildfire potential,” she says. So while the winters were wet enough to create more fuel for fires, it was not wet enough to prevent those fires.

“We had such a warm, dry summer that all of those benefits to the fuels and the moisture they received were gone by the end of July,” Stamper says. “So we actually went from having record levels of moisture that would prevent fire to record low levels by the end of the summer.”

Because these big, high-profile fires can be so noticeable, people have a tendency to apply their own ideas about what is going on. Reggie DeSoto, a former firefighter, told *Eugene Weekly* that he thinks more recent forest fires are related to logging and herbicide use. He says that dry grasses that burn easier are associated with the use of herbicides.

But Johnston warns against assigning generalized reasons for fire. “Logging and herbicide use are very, very broad categories of actions,” he says. “These sweeping generalizations are never accurate. The reality is more complex.”

Stamper also mentioned high-profile fires, like the Eagle Creek fire that occurred in the Columbia Gorge last September after a teenager lit fireworks in the area.

“It was obviously an intense event that caused a lot of distress, particularly in Portland. I understand why there is a tendency to want to point fingers,” Stamper says. “They couldn’t have picked a worse day to decide to light fireworks out there.”

For this upcoming year, there are multiple sources one can check with about fire season predictions. Stamper recommends the Oregon Smoke Blog, which provides information about air quality and safety.

The National Interagency Fire Center also has predictive services. This year, they predict “above normal significant wildland fire potential” in Oregon.

Because smoke is so uncomfortable to breathe, fire experts address the importance of keeping yourself healthy during rough fire seasons. There is a consensus that basic cotton surgical masks do not help very much.

“Don’t stock up on cotton masks. They block large particulate matter like the stuff that gets generated from sanding or running a saw. They don’t stop smoke,” Johnston says. He says that N95 or N100 masks, available at medical supply stores, are more helpful than basic surgical masks.

Some other effective alternatives Johnston suggests include staying inside more, investing in an air filter and discussing particular health problems with your doctor.

Christopher Dunn, also a research associate in OSU’s College of Forestry, says that it is difficult to find solutions to the harmful effects of smoke.

“There are indoor air filters that can help people who struggle with smoke. It will be a fact of life, at least for the foreseeable future. Best to plan for it,” he says. “I wish there was something better to say for those at risk groups, but smoke is a reality.”

Smoke aside, Johnston wants to make sure that fire is not completely demonized. He says that it is not all bad.

“At a larger scale, private, state and federal managers need to increase the amount of prescribed fire on the landscape,” he says. “Controlled burns under the right conditions will reduce smoke emissions during uncontrolled wildfires. The best way to fight fire is with fire.”

He adds, “These places we live are really fire-adapted and fire-dependent ecosystems, and there has been a pretty significant effort to exclude fire from those systems.” He says that some of what we’re experiencing is a catch-up from that effort.

Johnston continues, “It’s not ideal to have to breathe smoke and to have to deal with some of these impacts, but it’s important to point out that these systems have adapted over thousands of years. People have lived with fire in these systems for thousands of years.” ■

James Johnston talks on “The History and Future of Wildfire in Oregon,” 7 pm Monday, July 30, at the Eugene Garden Club, 1645 High Street.