Tools In The Megafire Fighting Box

How does a community successfully prevent, suppress and restore the effects of megafires?

By Lauren Brown

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Summer is here in Harney County and with it comes the potential for wildfires. Megafires, fires that cover more than 100,000 acres, have become part of the new normal for firefighters across the west.

What is the best way to fight these huge fires that have the potential to threaten homes, property and lives? A collaborative effort that combines input from Rangeland Fire Protection Association members, federal, state and county employees, tribal members, conservationists, scientists and ranchers establishes an important channel of communication on which a foundation of trust can be built.

Pictured: Volunteers with the Harney County Wildfire Collaborative.

In 2014, the Harney County Wildfire Collaborative (HCWC) was created for just that purpose. Local leaders decided that the best way to fight megafires, which are increasingly more common and could certainly threaten lives and livelihoods in this agriculturally dependent economy, was to work together. Collaborative member Autumn Larkins, an assistant biologist for the Oregon Department of Fish and Wildlife in Hines, said the collaborative is vital to the success of preventing, suppressing and restoring the effects of megafires. “The term itself gives you an indication of the size and breadth of the landscape that we are dealing with,” she said. “These megafires know no jurisdiction boundaries. We have to be able to fight them in a unified fashion and using the wildfire collaborative is one way to make that a more successful outcome.”

Jeff Rose, Burns District Bureau of Land Management Manager, said that it’s important to have a diverse group of stakeholders established and communicating before a megafire happens so those relationships are already in place. “It sets us up to be successful,” he said. “It’s always hard to talk when smoke is in the air.”

Harney County has six Rangeland Fire Protection Associations (RFPAs), which allow rancher participation in fire suppression on private, state and federal range lands. The all-volunteer crews of ranchers receive training and can function as first responders when wildland fires do appear.

Rose said that the RFPAs are often the initial force on the scene when a fire starts. That early detection and rapid response can be vital in helping to keep fires small and manageable. He notes that the BLM meets with the RFPAs at least once before the fire season begins and then again post season to determine what went well and what didn't. They also meet several times throughout the season in unofficial, casual settings to touch base. These meetings allow each entity to explain how they work and operate. "The goal is for them to operate independently," Rose said. "They're doing good work out there."

The relationship between local and state and federal agencies hasn't always been so positive. Larkins with the ODFW said communication between agencies prior to the formation of the collaborative was strained. "The HCWC spent its early months trying to rebuild a cohesive firefighting resource," she said. This involved establishing shared knowledge of current habitat conditions, reviewing the fire history in Harney County, clarifying the official memorandum of understanding and developing creative ways to share training, communication tools, equipment and protocols. "This enabled federal and RFPA resources to work together," Larkins said. "We were even successful in the creation of a new RFPA liaison within the Burns Interagency Fire Zone."

One way the collaborative works to prevent megafires is by examining fire science. It's important to study the conditions and landscapes in which a fire thrives in order to manage those areas and ultimately minimize the risk of fire before it starts. Larkins noted that while the collaborative cannot stop a lightning-caused fire from igniting, it can try to manage the landscape prior to a fire. "We can reduce the residual fuel that is left on the landscape with strategic grazing. We can fight invasive annuals with chemical or mechanical methods, and we can create fuel breaks to help slow or stop fires after they are already burning," she said.

As far as actual tools used to help fight a fire, BLM Burns District Manager Rose says everything is on the table when faced with a potential megafire. "We use any tool we can," he said. "The key is always people on the ground." Tankers and helicopters can be very effective, and while it's important to have access to tools that can assist from the ground and the air, people are the most important factor. "Really, the fire gets put out by the firefighter at the end of the nozzle," Rose said. Tankers can buy time while fighting a fire, but the BLM's goal is getting trained personnel on the fire line in a safe manner.

While actual firefighters are key to putting out megafires, new technology is being developed to help spot fires before they spread. AlertWildfire, a system of cameras situated in remote areas to provide early fire detection, is in use presently in Harney County. It was developed through the University of California San Diego's High-Performance Wireless Research and Education Network in collaboration with University of Nevada Reno's Alert Tahoe, BLM Wildland Fire Camera Project and the University of Oregon. The first cameras in Oregon are located on Steens Mountain and Blue Mountain.

Pictured: The crew working the Pueblo Mountain Pilot Study burn and treatments Fall of 2019.

The cameras can pan and zoom in, but they need human eyes looking at the images for the system to work, and that's where the general public can help. Rose said that one of the system's goals is to make it open to the public so that anyone with website access could have the opportunity to view and report a fire or column of smoke.

"The cameras provide real time fire activity information across broad geographical ranges," Larkins said. "With the cost of fire suppression reaching historic levels, this network of fire monitoring cameras will pay for itself with the early detection of just one megafire," Larkins said.

For more information about AlertWildfire, go to alertwildfire.org.

Interested in learning more about the HCWC? The wildfire collaborative meets six times a year, and the public is welcome to attend. The next meeting is Thursday, July 18, 9:30 a.m. to 3:30 p.m. at the Harney County Education Service District conference room. For more information contact Ben Cate at ben@highdesertpartnership.org.

This article is provided by High Desert Partnership; a Harney County nonprofit convening and supporting six collaboratives including the Harney County Wildlife Collaborative.

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