

Wildland fuels are the one component of the fire environment we can change

by Doug Newbould

Well, here we go again. Another wildfire season is fast upon us—a bit earlier than normal this year, it would seem. It's not like it (the fire season) snuck up on us...we were all aware of the lack of snow this winter. In my case, I kept hoping we would get three or four feet of wet snow in March and April. When that didn't happen, the fire danger went from Low to High in a matter of a few days.

Several wind events in the last six weeks have elevated the fire danger here on the Kenai into the High or Extreme category. High winds and low relative humidities can produce explosive fire conditions, as we experienced in mid-March (100-acre wildfire near Anchor Point). Typically, when we see those strong, north (gradient) winds, as we experienced that week, we can expect very dry air over Cook Inlet and the western Peninsula. In fact, some of our local weather stations recorded humidities under 20% during that wind event. And that is unusually dry air for a maritime climate.

As a fire management officer, I have an inordinate (some have suggested—obsessive) fascination with the weather. In fact, I'm one of those geeks who actually enjoy watching the Weather Channel! The Alaska Weather show on PBS is another of my favorites. And I don't just watch local weather reports. I watch world weather—especially when there are “big” weather events. I was vacationing in Mexico when the north wind hit south-central Alaska in March. When I returned and found out I had missed it—I was bummed out!

But for all the attention I give to the weather, I have learned one important fact: I can't change it. Of course, I will continue to be a weather geek, because weather has a profound influence upon fire behavior, and I am a student of fire behavior. I also study the land (topography) and the vegetation (fuels), and how those elements of the fire environment contribute to—and affect fire behavior. Another thing I've learned I can't change, at least on a landscape level, is the topography. Ah, but there is one element of the so-called “fire environment” that I as a homeowner or as a land

manager can change or manipulate...the fuels.

Since many of us live outside the urban environment, in locations where our homes, our out-buildings and our toys are either surrounded by—or are in close proximity to—forest vegetation (fuels), where the threat of a wildland fire is very real, I thought it would be good to share some ideas about managing fuels and the associated risks in the “wildland-urban interface”.

Before we hop on the bulldozer or crank up the chainsaw, let's stop and take a look around the property. We need to do a fuels hazard analysis or risk assessment. Essentially, we need to identify any vegetation or other organic materials (dead grasses, woody shrubs, evergreen trees, stumps, duff or forest litter) that could provide a pathway between an approaching fire and the house, the garage, the propane tank, the boat, etcetera. And while we're looking, we might as well identify the other flammable materials in close proximity. Are there woodpiles within 30 feet of any improvement? Is there a wood fence attached to the house? Are there fuel tanks or any other combustibles nearby?

The goal of this process is to create defensible space around those “values” we want to protect from an approaching wildfire. But before you or I design a “Firewise landscape” for our properties, we should also look at the bigger picture and consider the larger fire environment. What is the general topography of the area and does the position of my home on the larger landscape increase or decrease the risks from fire? What are the prevailing winds and seasonal weather patterns? Is there a history of wildfire in the area? Which forest fuels are more hazardous, more likely to carry a wildfire? If a wildfire occurs in the area, what is its likely direction of spread? From what direction would an approaching fire become a real threat to my family and property?

You may want to consult with one or more local wildland fire experts to get answers to some of these questions. The local fire chiefs and wildland fire professionals in the area can help you with the big picture. They can help you with the information resources and

the tools you need to conduct a risk assessment and design a firewise landscape. They can also give you some ideas about the most cost-effective methods to implement your plan.

Some of the basic rules of thumb for creating a defensible space are:

- Remove all flammable vegetation within 30 feet of all structures.
- On steep slopes, remove flammable vegetation out to 100 feet or more.
- Grow only fire-resistant vegetation within the defensible space zone.
- Maintain all plants by regularly removing dead branches, leaves and needles.
- Locate woodpiles at least 30 feet from structures and clear 10 feet around woodpiles.
- Locate LPG tanks at least 30 feet from structures and provide 10 feet of clearance.

Beyond the 30-foot defensible space zone, out to 100 feet or more depending upon the slope, you will

need to reduce the number of trees in heavily wooded areas and remove concentrations of dead woody materials on the ground. Space native trees and shrubs at least 10 feet apart. For trees taller than 18 feet, prune the lower branches within six feet of the ground. Maintain your defensible space and firewise landscape by watering during dry periods and keeping your lawn mowed.

Fuels management and defensible space are just part of the Firewise program. If you would like more information about Firewise, visit the national website: www.firewise.org. Or contact your local fire department, the Kenai Peninsula Borough's Office of Emergency Management or the Spruce Bark Beetle Office, the Alaska Division of Forestry, the Chugach National Forest or the Kenai National Wildlife Refuge. I would enjoy talking with you about the fire environment and how you and I can manage it.

Doug Newbould is the Fire Management Officer at the Kenai National Wildlife Refuge. For more information about the Refuge, visit the headquarters in Soldotna, call (907) 262-7021. Previous Refuge Notebook columns can be viewed on the Web at <http://kenai.fws.gov>.