



WILDLAND INTERFACE FIRE SAFETY

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While it is not surprising in light of recent events that hurricanes and potential terrorist acts are currently commanding a great deal of public concern, wildland fires also pose a significant, and growing, threat—not just in terms of dollars and cents, but to life safety. In fact, at no time in history have more U.S. lands and communities been at risk from catastrophic wildland fire. As might be imagined, the most vulnerable areas are those where development has encroached upon wildland: commonly termed the wildland-urban interface. Consider the following.

- There are some 560 million acres of wildland-urban interface in the U.S., occupied by approximately 140 million residents in 40 million homes.
- A significant percentage of the 4,000 acres developed every day encroaches on wildland areas.
- Over the past decade, there have been an average of 61,000 wildland fires per year in the U.S. Although 97 percent of these are extinguished before they exceed 10 acres in size, the remainder are responsible for 95 percent of the suppression costs (\$2 billion).
- Although suppression efforts saved approximately one million homes from wildland fires in 2000, over 28,000 were destroyed.
- In the 1990s, U.S. insurance companies paid out about \$5 billion in claims related to wildland fires. That amount has already been equaled this decade and is certain to increase.

Assessing the Threat

Why are wildland fires today so large? Why are they so destructive? Most important: why are they so dangerous? The answer to all of these questions is that our forests were mismanaged in the past and, in many cases, continue to be. Many policies (such as that of extinguishing every wildland fire while it is very small) have altered the wildland ecosystem, and we are paying the price.

While the destruction of wildland areas is a tragedy, once such fires reach the interface the concern becomes a much more human one—and that interface continues to grow virtually unchecked and lightly regulated. This can be attributed at least in part to the general public's failure to clearly recognize the threat posed by wildfire in the interface. At-risk occupants trust that their local fire department will be able to control any wildfire before it seriously damages their property, and that their insurance company or federal and state disaster assistance will always be there to cover any losses that do occur. Although true in many cases, this mindset enhances the potential for catastrophic events. Unfortunately, official warnings and media reports about the imminent risk have so far had little effect. Only when catastrophic events like the 2002 Rodeo-Chediski wildfire in Arizona occur (over 400 structures destroyed, nearly all homes) do interface fire protection issues generate widespread public interest, and that kind of "news of the day" interest fades all too soon.



Addressing the Problem

How can we in the building and fire safety community address the problem?

Programs like Firewise, Fire Safe, Fire Free and Fire Smart have had some success in educating administrators and property owners about the benefits of employing common-sense fire prevention principles, and the efficacy of these principles was borne out during a 2004 meeting sponsored by the Government Accountability Office to determine what research might be needed to address the problem of wildland fire in the interface. The final consensus of the assembled experts—which ranged from firefighters to academics—was that no additional research was needed. Rather, as we have known all along, survivable space must be provided between structures in the interface and highly flammable vegetation and the structures must have an appropriate level of ignition resistance. This does not mean that homes must be surrounded by concrete or some other noncombustible material, only that landscaping should employ plants with a high moisture content and that any other vegetation which may place the building at risk should be trimmed or replaced with high moisture content plants.

Given the consensus on how to address the problem, why are we still losing thousands of structures every year and risking thousands of lives? Consider for a moment another low-cost, highly effective, common-sense safety measure: the use of seatbelts in automobiles. In the 1960s, the federal

government mandated that seatbelts be installed by automobile manufacturers and launched a robust public education campaign. More people began using seatbelts, but not nearly enough to achieve the projected national safety benefits. It was only after the federal government tied state highway funding to mandatory seatbelt laws that their use became the rule rather than the exception, resulting in a substantial reduction of highway injuries and deaths.

The current situation with the wildland-urban interface is similar. We've seen time and again how at-risk neighborhoods and even individual owners that adopt the recommended measures sustain little or no damage from wildfires while adjacent properties are utterly destroyed. So although we should certainly continue our education efforts, it is time that we recognize that they will only be minimally effective in the absence of appropriate regulations.

The *International Wildland Urban Interface Code* (IWUIC) contains all of the necessary regulatory language as well as a number of instructional appendices to assist in the application of its provisions. Of course, it is also fully compatible with the *International Building Code*, *International Residential Code* and *International Fire Code*: the most widely used model codes of their type in the U.S. There can be no doubt that the adoption and enforcement of the IWUIC in interface areas will create a level of wildfire safety never before realized in this country—and with development in these areas continuing at an unprecedented pace, the time to press for such action is now. ♦