

The Wildland/Urban Interface

What's Really At Risk?

by
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Abstract

The interface has long been a matter of discussion among land managers and wildland fire professionals. With the release of the National Fire Plan in the fall of 2000, and subsequent congressional appropriations designed to treat hazardous fuels, new parties have joined the debate. The reality is that the interface is bigger than most realize and some are willing to accept. It can easily encompass several jurisdictions and ownerships. It may extend for miles and include substantial public land. A new definition of interface is required, along with a commitment to protect and preserve **all** neighborhood and community values-at-risk.

Various definitions exist as to exactly what the interface is and where it is located. One of the most common is that it is "a geographic area where formerly urban structures, primarily homes, are built in immediate proximity to naturally occurring flammable fuels."

After the fire is controlled, and both media and suppression resources have returned home, neighborhoods and communities are still left with the result. Savvy fire professionals realize that control of the fire may be the easiest part of the entire incident. For many of those who "remain behind", recovery can be a long-and torturous road.

Financial - Every fire season, stories emerge about the loss of revenue suffered by local businesses attributed to an on-going fire in the area. This can be particularly acute during the height of a summer tourist season. Multiplied throughout a community, the result can be very serious. Chamber-of-Commerce's, Tourism Bureau's, and other merchant associations may need to spend considerable time and money to market themselves and the area following a fire.

Depending upon the fire's severity, state and/or federal money may be available to help offset recovery costs. However, this money is not without cost. Staff time devoted to documentation and accounting requirements can be extensive and it may literally be years before all is settled.

Transportation - Fires can often disrupt travel corridors. This may involve air, rail, or vehicle routes. The 1994 Storm King Mountain fire in Colorado's Rocky Mountains rightly focused on the 14 firefighters who were killed during that event. But shortly thereafter, a debris flow from the fire site moved downhill and totally blocked the westbound lanes of Interstate 70 for an extended period-of-time.

Recreation - Opportunities to enjoy the out-of-doors are cherished by many. Activities are as varied as those who seek them out. But few individuals will travel to a blackened site to pursue recreation possibilities: the opportunity is "lost" until the effects of the fire have passed.

Rebuilding - For most areas, structures and infrastructure damaged or destroyed during a wildfire will need to be repaired or replaced. For many communities, this will involve rezoning requests, public hearings, issuance of new permits, and necessary work-related inspections. Building and engineering Departments can be quickly overtaxed. This can be extremely frustrating to all involved.

Environmental - A devastating wildfire can affect a variety of environmental concerns. One of the most obvious is wildlife and plant habitat. Some of the sites most at risk are home to various Threatened & Endangered species. It is not uncommon to see this habitat listed as a threatened resource on a wildfire's daily summary report. Nor is it unusual to read this same habitat has been destroyed when reviewing post-fire narratives. It is extremely unfortunate that many who spend considerable time to shield these species ultimately doom their habitat to destruction.

Watershed values are another important concern. An example of such damage is the 11,000 acre Buffalo Creek fire which occurred outside Denver CO in 1996. The fire burned through a portion of the South Platte River drainage, a major contributor to the greater Denver metro-area water supply.

Within months following control, severe soil erosion was occurring. (While vegetation can recover given sufficient time, soil literally takes eons to replace.) Cheeseman Reservoir had to be drained and dredged. In the five years since the fire, thirteen 100-year flood events have occurred and two lives have been lost.

Forest health is another very real concern. Fires are natural events and have been present from the beginning of time. What has changed, however, is the severity of fires we are now experiencing. Western ecosystems have not evolved with the fire intensity they are now subjected to. Inaction or a timid approach to the issue is a death sentence for our forests.

Public Confidence/Support - Following any major incident, public review of officials and programs may occur. Confidence in individuals, institutions, and activities may be questioned. Moreover, this scrutiny is not necessarily reserved for public officials or institutions alone. It can easily be directed to private groups who have either opposed or advocated a particular course of action contrary to the public's desire.

In itself, this examination is not necessarily bad. But the lesson should be clear - foster efforts to prevent or mitigate the effects of the event prior to its occurrence or face the consequences. Proactive leadership is the preferred course. One should not underestimate the potential for detrimental reactionary program or legislative changes.

Scenic - Picturesque long-distance vistas are an important component of our landscape; many travel great distances to partake of the experience. For some, it may be much closer-to-home, such as an open-space area they pass everyday on their way to work. For others, it's simply enough to know they exist. Pictures, and views, do speak louder than words.

A comment often heard is "should a fire occur, that's what insurance is for". It's ironic that one never hears that from those whose home has survived, but which now overlooks a black, desolate landscape or from those confronted with several feet of mud in their home.

Emotional/Spiritual - Many individuals and groups may have intense bonds to a particular site. This bond is often overlooked or under-appreciated by many. Nonetheless, it is true and powerful. Damage, real or perceived, to these sites can cause mental or even physical pain to an individual, a family, or an entire culture. An example of the latter is the sacredness of the San Francisco Peaks to many Native American tribes in the Four-Corners area.

Notice that **Public Safety** is not listed in either the **Immediate** or **Secondary** threat list. Fire professionals are occasionally chided by some for using the public safety argument too-frequently. But it is real, and it's not exclusive to either time-frame: the effects of a fire - both immediate and secondary -

may threaten public safety throughout the length of an incident. As demonstrated above, the life of-an-incident may extend for years.

Do the points listed mean that private landowners are excused from the need to build wisely or implement vegetative treatments in the area immediately adjacent to the structure? No! In fact, to be truly effective, vegetative treatments must occur on both sides of the boundary fence. Work done close-in to a structure can prevent it's loss, while that done at further distances can prevent or mitigate the other damaging effects of a serious fire. Both are important: treating one without the other won't resolve the problems we almost always face when the fire(s) occur.

This leads one to re-examine the traditional definition of interface and the emphasis on treatments applied immediately adjacent to structures. A more functional definition of interface might be:

An area in-and-around a neighborhood or community where the immediate or secondary effects of a wildfire threaten values-at-risk and will be a serious detriment to the area's overall health and sustainability

Such a definition broadens one's perspective and requires action outside of the building envelope.



*The Interface is bigger than most realize and some are willing to accept.
Photo by: Paul Summerfelt (2000)*

A successful example of an approach to mitigate the wildfire threat within the interface is found in Flagstaff AZ. With several hundred wildfires each year in-and-around the City, wildfire is the #1 fire threat to the community. The Flagstaff interface extends for several miles outside the city's corporate limits and includes private, county, state, and federal lands. It encompasses a geographic area that can reasonably be expected to burn given 2-3 consecutive days of active fire behavior.

Operating within the Prevention Bureau of the Fire Department, the Fuel Management program works to protect all values-at-risk threatened by wildfire. It has become a core-technology of the Department, equal to that of emergency medical service, hazardous material response, structure fire suppression, and the other numerous services performed by any municipal fire department.

With a full-time staff of five personnel, augmented by a 10-person seasonal crew plus one-two university student interns, the Fuel Management program treats over 1300 acres within the city each year with selective tree thinning, brush disposal, and prescribed fire. An active public outreach and education effort

seeks to recruit property owners to implement treatments. New developments, including individual homes, are required to implement fuel hazard reduction efforts prior to occupancy. Fire personnel receive on-going classroom and field training so they may properly respond to interface fires; this includes membership on both regional and national interagency Incident Management Teams.

In addition, the City is an active participant in efforts to reduce dangerous fuel accumulations and restore forest health outside the City but still within the Flagstaff interface. City Fuel Management personnel will provide advice, prepare Forest Stewardship plans, designate trees for cutting, oversee treatments, and conduct prescribed burn projects if the proposed project is within the threat-zone of the City. Doing so is in the City's best interest.